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A Reinterpretation of Old Data the Variable Speed of Light in Gravity and why the 4th Dimension is not Time

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ABSTRACT

This paper critically analyzes long-standing scientific assumptions and explores potential misinterpretations that have shaped modern physics. It argues that progress in fundamental discoveries has stagnated due to errors in the foundational theories we continue to accept uncritically. One key argument is that the fourth dimension is not time, as traditionally assumed, but instead results from a misunderstanding of physical processes. The paper also challenges the idea that the speed of light (c) is an intrinsic universe speed limit, suggesting it may be influenced by reflection, absorption, and emission, hinting at a deeper, underlying velocity. The concept of space-time curvature, attributed to general relativity, is re-examined, proposing that time dilation is better understood as oscillation dilation. Furthermore, the paper revisits Maxwell's equations, showing that they naturally average out the speed of light across different frequencies, questioning its supposed constancy. In addition to these theoretical concerns, the paper explores historical and sociopolitical influences on physics, particularly how World War II and economic challenges in Asia led to the unquestioning acceptance of Einstein's equations as unassailable laws, rather than theoretical models. Finally, the paper proposes several reinterpretations and experimental methods to investigate variations in the speed of light across frequencies, potentially leading to new insights. Through this critical reexamination, the work aims to challenge outdated assumptions and encourage a deeper, more accurate understanding of the physical universe.

INTRODUCTION

From the day I was born to the nights spent without electricity in Bangladesh, and until the day I die, I know that light exists. I have seen light from the sun, its reflection on the planet, the glow of the moon at night, and the distant twinkle of stars from galaxies far away. Humanity has used light for navigation, communication, and reading, relying on its reflections to interpret written words. In the modern age, light plays an even more crucial role in powering long-distance communication through fiber optics, eliminating the need for copper wires, and enabling rapid data transfer. But despite our constant interaction with light and the scientific community's advanced tools for studying it, there remain critical gaps in our understanding. Many theories established by past scientists have been accepted without question. Today's researchers rarely challenge whether these foundational ideas might contain errors or whether they need refinement based on new observations. Instead, science has become reliant on mathematical models, often prioritizing equations over the physical reality they are meant to describe. This approach has led to stagnation in fundamental discoveries. Rather than building theories from observable physics, modern science often tries to force physical phenomena to fit per-existing mathematical frameworks. This paper aims to question some of these long-standing assumptions, particularly regarding the nature of light. I argue that some fundamental beliefs about light, photons, and frequency measurement may be based on flawed experimental methods. If this paper challenges deeply ingrained ideas, it should serve as a wake-up call to encouraging scientists to reassess what they take for granted. To be clear, I will not be discussing string theory or M-theory, as I do not believe in them. I reject the Many Worlds Interpretation because I focus on the dimension in which I exist. I am very fond of my own dimension that I live in.

LITERATURE REVIEW

The Speed of Light as a Human Visible Spectrum Standard, Not a Universal Constant

Let's dive into the fascinating concept of the speed of light, denoted as C, which is commonly accepted as a constant 299,792,458 meters per second. This value is frequently cited as an unchanging universal constant, independent of the conditions surrounding its measurement. However, the story behind how this conclusion was reached, and the assumptions tied to it, raise some thought-provoking questions.

First, let's consider the range of light that humans can actually see. The visible spectrum is generally defined as wavelengths from 380 nm to 750 nm. But it's important to note that this range isn't rigid. In fact, research shows some variability, particularly when comparing younger and older individuals. Younger people, especially those under 20, have been found to be able to see light extending slightly into the ultraviolet range closer to 320 nm. This naturally brings up an intriguing question: how might the age of a person impact their measurement of the speed of light?

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For instance, imagine if Albert A. Michelson, the physicist who famously measured the speed of light using his mirror wheel method, had been younger, say under 20. It's possible that he might have had a broader visible spectrum and could have seen light wavelengths just beyond the range that older individuals could detect. Would his measurements have been different? Would the speed of light, as measured through his eyes, have appeared to shift? This raises the possibility that our understanding of light could be tied to the perceptual limits of the individual measuring it.

Michelson's era didn't have the advanced technologies we now possess to measure light more precisely, so could the researchers of that time likely in their 30s have been influenced by their own age related perceptual limits? And if younger individuals, with a broader range of visible wavelengths, had been involved in the discovery, might they have perceived something different in their measurements? These questions also tie into the broader issue of human perception and how biological factors, such as age and even gender, may influence our scientific understanding of the universe.

A key study to consider is by Billy R. Hammond Jr. and Lisa Renzi-Hammond on Individual variation in the transmission of UVB radiation in the young adult eye, which showed that young individuals, especially young boys, can see wavelengths as low as 320 nm well into the ultraviolet spectrum. So, if someone like Michelson had been younger, his ability to perceive light at those wavelengths might have shifted his perspective on light's speed. This leads to a larger question: if the speed of light is tied to the human eye's ability to detect certain wavelengths, can it truly be considered a universal constant?

Now, consider the broader implications of this question. What if we were to design sensors or optical equipment based on the visual limitations of older adults, whose range of light detection is narrower than that of younger individuals? If such technologies were created by people with limited light perception, how much trust could we place in their measurements, particularly when those technologies become standardized across the globe? This leads to the idea that our tools and measurements might carry an inherent biasone that's shaped by the very biology of the people who develop them.

If age plays such a significant role in how we perceive light, could it be that the speed of light, as Michelson measured it, is directly tied to the frequency range his eyes could accept? While most scientists would argue that our modern measurements of light, based on precise instruments rather than human perception, have moved beyond this limitation, it still raises the question: Should we consider the speed of light as a human constant, shaped by our perceptual abilities rather than an absolute universal truth?

118 years after Michelson's passing, we have developed more sophisticated means of measuring light, using advanced technology to eliminate the subjective influence of human perception. This allows us to measure light's speed in a way that is less dependent on the biology of the observer. However, it's still worth noting that our tools and methods for measurement have been developed by people who themselves may be limited by their biological age and perception. And so, instead of calling this speed the universal truth of the speed of light, perhaps we should recognize it as the universal truth of the speed of light as perceived by human beings limited by our visual spectrum.

Finally, what if we were to move faster than the speed of light? Would this enable us to perceive more of the electromagnetic spectrum, perhaps wavelengths that we can't normally see, such as gamma rays or cosmic rays? Intuitively, one might think that traveling faster than light could somehow expand our perceptual range. However, the reality is that even at such extreme speeds, we would still be constrained to the human visible spectrum, which is only a small portion of the entire electromagnetic range. Our eyes filter out nearly everything beyond this range, whether it's ultraviolet light or the more extreme radiation types, like gamma rays. So, even if we traveled faster than the speed of light, we wouldn't see more light just a wider range within the narrow limits of what our eyes can detect.

The speed of light, therefore, isn't a universal limit in the grandest sense, but more of a human threshold, mostly viewable by the majority of the human population. It's a fascinating thought to consider: the speed of light may not be a universal constant at all, but instead, a constant shaped by the biology of the observer an intriguing blend of physics and human perception, or more like a human biological error of visual data.

Misinterpretation in Frequency-Based Measurements of Invisible Light

In this section, I want to explore why the speed of light should theoretically vary across different frequencies, but due to a key internal factor within radio systems, we often end up with an average speed of light across all frequencies. Before diving into the specifics of the frequency dependent speed of light, let's first discuss Maxwell's equations crucial to understanding electromagnetic waves and light.

Maxwell's equations, in essence, refine Gauss's laws for electricity and magnetism, along with Faraday's law of induction. By combining these ideas, Maxwell proposed a unified framework for understanding how electric and magnetic fields behave. These oscillating fields create electromagnetic waves, with electric fields vibrating up and down and magnetic fields oscillating perpendicular to them. Together, these fields propagate through space at the speed of light about 299,792 kilometers per second in a vacuum.

However, there's an important aspect of this that's often overlooked: the way light interacts with materials at different frequencies. When light enters a material, particularly at higher frequencies, it can trigger thermodynamic effects within the system itself. This is something we already know from thermodynamics: when high frequency energy is absorbed by a medium, it causes the material to become excited. This excitement usually leads to an increase in temperature, as the material absorbs the energy. The problem here is that as the material heats up, it begins to lose efficiency. The heat essentially disrupts the material's ability to transmit light, lowering its efficiency in the system.

So, what happens when this heat builds up? Even with cooling efforts, if high frequency energy keeps entering, the system will gradually become hotter and less efficient. Eventually, the increase in temperature and loss of efficiency lead to averaged-out results. In practical systems, especially within the context of radio or light detection, this heat can have a cumulative effect, leading to a uniform speed of light measurement across different frequencies specifically those within the infrared and visible spectrum.

But this isn't the end of the story. There's another interesting issue to consider when measuring the speed of light: the phenomenon of reflection. Light doesn't just interact with a material to create an electric or magnetic field it also reflects off surfaces. When measuring the speed of light, we are actually measuring the speed of light after it has interacted with a material, which means we're not measuring the one way speed of light, but rather the speed of reflection or re emission.

Here's where things get a little tricky. When light enters a material, it doesn't absorb all of the light it reflects some of it. Only the absorbed part of the light is transmitted into the system, and part of it inevitably gets lost due to heat, which further lowers the system's efficiency. As a result, the speed of light in the system decreases. The speed that we typically calculate about 300,000 kilometers per second isn't the true one-way speed of light, but the speed of light measured as it reflects and re-emits from a surface. This reflects a two-way measurement rather than a true one-way speed, making it inherently more complicated to pin down the true speed of light.

Now, let's take a step back and look at the bigger picture. The speed of light we are accustomed to calculating is based on the reflection of light, but there's a crucial point here that's often overlooked: the light we see is not light in its raw form, because when astronauts goes outside of the planet earth in a space ship, both by the astronauts and the camera captured footage shows mostly reflection of celestial objects or asteroids or the source of the emission itself like the sun but no ray of light like we see on earth when we use a torch light in a cold or foggy or dusty room. What we actually observe whether it's reflection, refraction, or diffraction are secondary effects that occur after the light interacts with the material. These effects are a result of the light's interaction with the material and not the original speed or nature of the light itself.

One thing to remember is that while we can't see infrared light with our naked eyes, it still carries energy. The question arises: why doesn't infrared light, for example, cause nearby objects like dust particles or other masses to emit visible light? The reason is simple: if the infrared light doesn't transfer enough energy to a mass, it won't trigger visible emission. Take an infrared TV remote, for instance. While the infrared light transfers energy to the remote's sensor, it's not enough to cause any visible light emission.

When energy from light is absorbed by a material, it typically excites the electrons within the material, causing them to move to higher energy levels. Initially, this process occurs through invisible radiation, typically in the form of radio waves or infrared light. This energy transfer doesn't yet result in visible light, as the system isn't energetic enough to release excess energy in the visible spectrum. The radiation simply gets absorbed, and the mass accumulates energy.

But as the material continues to absorb energy especially at higher frequencies this energy will push the system into a higher energy state. Once the material reaches a critical threshold, it will release the excess energy as visible light. This is the point where we see visible emission: the material has accumulated enough energy to release the energy in the form of light that we can perceive.

This is an ongoing process in nature. Mass is constantly trying to re stabilize itself within its environment. If the environment is hot enough, the mass will naturally release excess energy in the form of visible radiation. If that radiation interacts with another mass, it can be reflected or absorbed. However, if the mass is in a low-energy environment like a very cold place it won't absorb enough energy to emit visible light, it must need to be in a certain frequency range.

Now, you might ask about burning wood or other fuels. The process of combustion releases stored energy from chemical bonds, creating heat. If this heat has enough energy, it can transfer to nearby materials, causing them to absorb or reflect the heat. This is because the combustion energy is high enough to excite other masses, leading to further interaction between energy and matter.

Through all of this, we start to see a larger picture: the speed of light, and how it is measured, may be influenced by the frequency of light and the thermodynamic interactions between light and matter. So, while the speed of light as we commonly understand it is often treated as a fixed value, the reality is far more complex, tied intricately to both the material properties of the systems involved and the frequencies of light interacting with them.

The Fourth Dimension is an Invisible Interconnected Platform But Not Time

This part of the topic is going to be crucial because when we think about it carefully, only then will we be able to understand that maybe Einstein's statement about the speed of light being constant and the stretching of space is might not be real. This view stems from the experiment done with atomic clocks and how they change in varying gravitational zone, which led Einstein to believe that time dilation occurs, both due to gravity and velocity.

In this section, we will try to understand the origin of time. We will eventually see where we have gone wrong and why we cannot use the time dilation factor in Minkowski and Einstein's models to define the fourth dimension. It will become clear that the speed of light is actually a variable factor, and much of the information we have is incorrect.

First of all, let's start with the origin of time. When human beings first came into existence, they didn't use materials like sundials or even the clocks we use in our everyday lives. There was an era when humans only counted whether it was day or night. Then, many years later, people started observing seasons how one season is very hot, another is very cold, another is just right, and some are extremely rainy. As more era passed, eventually mathematicians, or perhaps the early scientists or physicists of that era, devised calculations to help understand how we live in a place where objects are spherical or nearly spherical.

These early thinkers came to realize that if we lived in a place that was perfectly round or nearly round world and it might be beneficial to divide our perspective of continuous events using certain mathematical calculations. One of these was based on the fact that our planet has a physical shape close to 360°, so it would make sense to divide these 360° to give us an idea of how much time has passed at each moment. Essentially, it took six generations of human civilization, apart from earlier ways of thinking, to give us a proper understanding of time as a tool for measurement.

The concept of time we use today on our clocks is actually a human made construct, an artificial reality created for counting the passage of events and to record the passage of events more precisely. It allows us to capture and store information in digital formats, such as through video or sound recording, to document events that might have occurred in the past, review them, or use them as evidence in court, among other purposes.

The first timekeeping method started in ancient Egypt around 2000 BCE, where the Egyptians divided the day into two sections: 12 hours for day and 12 hours for night. Then came the second civilization, Babylonia, around 1900 to 1600 BCE, which used a base-60 system. This system divided an hour into 60 minutes, and each minute into 60 seconds. This division was made because we live on a planet with a circumference of approximately 360°. Then, in the 1st century BCE, the Romans developed a system of timekeeping based on 24 hours a day. This method was then applied to sundials, where the angle of the sun would determine the time. In the 12th century, medieval Europe decided to use astronomical knowledge and came up with a system where one hour was 1/60 of a day, and one minute was 1/60 of a second. Eventually, in the 14th century, mechanical clocks were invented, and they were used in such a way that they could be made into pocket watches or wristwatches. This allowed people to measure events more precisely which we eventually call it timekeeping.

If we try to understand what's really going on, we can see that time is essentially a human made construct a tool designed to measure events and quantify the flow of time in more precise terms according to human consciousness. This has led to the concept of overwork, which can eventually lead to lawsuits and, funny enough, other consequences.

But let's talk about the topic here—the era when people used sundials to measure the movement of the sun in order to understand when it was noon. This method was based on the sun's position, which was constant according to the seasons. Even now, it's the same, but back then, it wasn't as noticeable because the oscillation clock-based system was never used. What people used was a shadow stick and length based system, which depended on the location of the stick's shadow. So, back then, events wasn't precisely measured. The only precise measurement available was looking at the stick's shadow. Basically speaking, people looked at celestial objects—either the moon or the sun—to get an approximate idea of the current events. It wasn't as precise as today, but it gave them a rough understanding of where the shadow would land. Based on that, they could determine if it was day or noon or other subdivided day system. In other words, if time itself is a human-made construct, and due to changes in the mechanism, such as from the sundial, which looks at the shadow of the stick, to modern energy-based systems, where the amount of oscillation within the crystal determines how much artificial time has passed, the measurement system has evolved significantly.

Finally, we came to the atomic clock. An atomic clock oscillates many more times per second than a quartz crystal. So, what happened here? In cases like this, what actually occurred was that we were measuring one type of system the angle of the sun using a sundial and looking at where the shadow of the stick landed compared to mechanical systems like quartz clocks or atomic clocks, where we measure the flow of artificial time created by humans. Instead of the sundial, we now count the oscillations required to define one second.

So the question remains: What happened here? We basically moved from a non-energy system, such as measuring the shadow of the stick, to an energy-based system, like the quartz clock's oscillations. The atomic clock is even more precise than a quartz clock because it oscillates many more times per second. So what happened here? We are essentially measuring two inflation, not just one.

When human beings first came into existence, the concept of a clock didn't exist. What existed was the passage of events, which is essentially a continuity of events. So, what is continuity? Continuity is the passage of events that happen on a constant basis, regardless of whether anyone decides to do anything. No one can stop it, because the passage of events is continuous, and no one can change it, it is like a play button of reality in a game and no one has the power to pause or stop it. But because we needed a more precise way to measure this continuity of events, smart people devised a way to measure it, and the sundial was one of those inventions. But this was the first inflation of time.

Because of this, we can see with sundial that the sun doesn't rise in the same place every day, the shadow of the stick changes its location throughout the seasons. What we're measuring then was an artificial construct made by humans to understand how much the sun's position which changes with each season. Using the first inflation of sundial wasn't problematic because we didn't notice the difference in the sun's position as much compared to now where we are using the quartz or atomic clock.

In the past, with the sundial, we could say, "Okay, no matter the season, whenever the sun is in such a position that the stick's shadow lands in a certain spot, then it's noontime or the middle of the day." But now, with the oscillation-based system of precise timekeeping and not with the help of a sundial, but with the addition of minutes and seconds in the energy oscillation system we've created an even more disconnected frame of reference from the true continuity of events and the one direction flow. This oscillation energy system are quartz and atomic clocks.

As a result, what's happening today is that we are no longer measuring the flow of continuity in a natural sense. Instead, we are measuring the flow of continuity in an unnatural energy fluctuation way. As a result, we see that the middle of the day, when the sun is supposed to be at its highest point, no longer matches with the traditional idea of midday during the sundial era. The time 12:00 PM no longer corresponds with the sun being directly. This is the where the double inflation of time started.

This proves that the Minkowski and Einstein view of atomic time dilation were wrong. If time itself is not real, but a human construct made in such a way that we can feel every passage of time or continuity in a way that gives us a precise idea of what we are measuring, then it is not a dimension as Minkowski predicted, rather it is something that people have forgotten over the course of history. During the era of Minkowski and Einstein, the concept of the internet wasn't available as it is today. As a result, they thought that time was an automatic sequence, and they didn't need any more explanation.

This is the exact reason why both Albert Einstein and Minkowski got the false impression that time is just another dimension within the 3D dimensions. Basically if time is a human made construct of measuring the passage of continuity, then how can we say that time dilation is real and not oscillation dilation? And if the 4th dimension is not time, then why does the atomic clock become faster or slower depending on the gravity it's in?

If the 4th dimension was truly time, then we would have experienced time even without a clock, but that didn't happen. What happened was that the clock measurement system we use, the atomic clock, somehow reacts to the gravitational force created by Earth, where in high gravity zones, time flows more slowly because gravity is affecting the atomic oscillation rate. But when the atomic clock moves away from the gravitational zone, such as at a higher altitude, it becomes faster. When gravity is lower, it causes the atomic clock's oscillation frequency to change, becoming faster.

In other words, that the 4th dimension is not time, rather 4th dimension might be something else. So, the question that comes to mind is if the 4th dimension is not time, then what is the 4th dimension and what causes oscillation dilation? For this reason, we need to know two important topic. Topic one will be the flow of energy within a magnet and topic two will involve pressing any part of a ball, but not just any ball, a transparent ball filled with water, where when we press one part of the ball, the entire surface of the ball gets pressurized. Once this is explained properly, only then we will be able to understand that magnets, electromagnets and even gravity affects the energy flow within the system of every atoms to oscillate at different frequency at different altitude where the gravitational strength is also different.

So, first of all, let's start with a magnet. We know that two North Poles or two South Poles repel, but opposite poles attract. Everyone has seen it, it is the most correct way of knowing that there is attraction and repulsion. But this doesn't explain why the magnet reorients itself at close range to try to get attracted to one another. When we look for a solution, the majority of people always think from one point of perspective. But we know that there could be other points of view, which for some reason have been stigmatized. The magnetic attractions of the North Pole and South Pole is not actually new; it's an extremely old topic about 200 years old. No one, not even Einstein himself, ever questioned why magnets don't just cause attraction or just repulsion, but why magnets actually reorient themselves. Why do they reorient themselves when two of the same North Pole or South Pole are facing each other? Why one of the magnets reorients itself, causing the North Pole to face the South Pole, and then attraction happens? When I ask this question to anyone, even artificial intelligence like ChatGPT, the only answer I get is that it's because of the magnetic field. But what if it is not about attraction or repulsion. What if it's the flow of energy within a system that causes the magnet to reorient itself to get attracted to another!

When we look at magnetism from this perspective we can finally see a large misinterpretation of data ranging from 200 years till now. The scientific community accepted this point of view with out question. But now, because we live in the era of the internet, anyone who has a different say to anything, whether people who judge it understand anything or not, immediately responds to it and says that the new point of view is incorrect without even thinking for a moment that maybe just maybe we were wrong for a long time. This is why we should be looking at multiple points of view, but modern science will immediately either burn the paper, throw it away or never even look at it.

So, if we try to understand this flow of energy from this new point of view, what would it look like! To demonstrate this imagine there are two escalators, both of them going down or going up at the same time. Think of the human as one pack of energy. As the human goes up or down the escalator, they will not be able to perform a complete loop because they are either going up or down. But because both escalators are moving in the same direction, they cause the human being to go in one direction only, and then move away to somewhere else, but not return to the same direction.

In this case, the magnets are basically like this. Both the North and North poles or South and South poles are facing each other. What happens is that the flow of energy is not getting looped back inside. As a result, when the flow of energy is basically the same in both directions, the energy itself decides to just get away from that system and go somewhere else. This is an example where the conservation of energy with in the magnet is not being maintained.

Now, let's think of another system where one escalator is going up, and the other escalator is going down. What will happen now? Of course, the human will now be able to go up and down, up and down, up and down, perfectly creating a complete loop or a perfect loop. Now, if we were to think about it in this way, only then would we be able to see that it is not actually attraction or repulsion. Rather, it is the flow of energy in a loop system. This escalator and human analogy is a very good way to give us a proper idea.

Now, what will happen if we add another escalator going up in the middle the two escalator which are going down? It's still a complete loop. But what would happen if we add a down escalator besides another down escalator instead of an up escalator? The new down escalator next to another down escalator will automatically cancel out the energy loop. Meaning, if we use this analogy, we can definitely see it is not attraction or repulsion. It is a highly simple, not complicated, but very easy way to understand that there is no such thing as attraction or repulsion. Meaning, any of the analogies, theories, or calculations that were made using the attraction or repulsion method in the last 200 years will automatically contradict everything this paper is proposing. But this paper is saying nothing unscientific but only a different point of view in a scientific perspective.

Now, if we use this flow of energy analogy and apply it to the magnet itself, and then we try to look at the oscillation factor of the atomic clock, what we will see is that somehow the flow of energy within the atomic clock oscillation rate becomes slower in a high magnetic or gravitational zones and becomes faster in a low magnet or gravitational zone. If this is the case, then it will automatically give us the idea that maybe, somehow the flow of energy within the atom is changing, causing the oscillation dilation of the electron itself and not time. Rather, what is happening is that due to the change in altitude or distance, it is automatically causing the amount of time in the atomic clock rate changes due to varying altitude or distance from large mass like earth, either becoming faster or slower. Because of this exact reason, what we should be looking for is not why time is dilation, but rather why the oscillation rate is changing within the atom itself from due high or low altitude or distance from the large mass like earth.

Now, lets move on to the second point of explanation, of why the 4th of why it is an invisible interconnected platform where the frequency or oscillation rate changes with the inverse square law, which causes a major change in an atomic clock (more like energy responsive clock), where changes in one place automatically cause changes within the entire atom itself or even cause changes to magnetism and gravity. To do this, we must first understand the 2nd and 3rd dimensions. If we do not properly understand two dimensions, we will not be able to grasp what the 4th dimension might be.

The 2nd dimension provides only surface-level information. Surface-level information refers to what is visible from the front. When we look at a piece of paper, we know it has thickness, but the thickness is so small that we perceive the paper as a good representation of a 2nd dimensional platform—a flat plane. However, this does not mean that atoms themselves in the paper are two-dimensional. Atoms have depth, which is evident even under the most powerful electron microscopes. Since we can observe depth within atoms and even within energy itself, it is clear that atoms exist in three dimensions.

Building upon this understanding, we must determine the principles of the third dimension. Many mainstream sources state that the 3rd dimension allows us to perceive depth, which is true, but most people do not fully understand how this concept of depth is formed. For example, if we hold a ball in our hand and squeeze it, we can feel it's depth. Furthermore, if we rotate our hand and see that the ball has a background behind it, we recognize that the ball is a fully three-dimensional object. This is because we am not only seeing the front but can also perceive what is behind it. But how are we able to see behind it? By rotating it. If we were not holding the ball, we could still determine if it is a 3rd dimensional object by moving around it. Observing it from multiple angles—top, bottom, left, right, front, and back, all surface level direction from every angles helps us understand that the ball truly exists in three dimensions. This ability to perceive multiple direction is what allows us to recognize depth.

Now, if we were to think about how we could see all sides of a ball without even rotating it, the question remains what kind of method would provide a proper analogy to express this idea? The best method is using a transparent liquid-filled ball. Let's say we have a transparent, ball-shaped container filled with water. To demonstrate the point, suppose we poke the ball from any one side with our finger or any other object, it doesn't matter as long as poking is done only from one direction. The moment we apply pressure on one side of the ball, the entire ball will feel that pressure. Why does this happen? Unlike air, which can be easily compressed, water is much denser. When pressure is applied from one point, the entire ball experiences the pressure effect due to the way liquid distributes force. And with the inverse square law as the pressure is distributed to all other places it lower with distance.

Now when we apply this analogy method to dipole magnets and earth which also has north and south pole, then we grasp the idea that the atomic clock just follows this inverse square law from powerful magnets and gravity, then we will understand what is actually happening is that the atomic clock(more like energy based fluctuation system) is actually adjusting it self in different magnetic and gravitational zone.

But now it raises the question how is the electromagnet directly related to the gravity, no one even Einstein himself didn't knew this, because the quantum mechanic only became more thoroughly researched after his death. We already know from the widely accepted fact in the scientific community that there is only 4 fundamental forces, they are gravity, electromagnetism, strong force and weak force. The only common thing about magnet and gravity are both follows the inverse square law, which states that the strength of a force diminishes with the square of the distance from the source.

Now if we use the flow of energy analogy here, then what we will find from logical thinking that the electromagnetism and gravity have another thing is common and that is the flow of energy. In both cases the gravity and magnetism is causing the flows of energy to come to a source of larger mass source like the earth a celestial object, meaning both electromagnetism and gravity is causing an attraction pulls towards a larger mass.

But the question still remains why earth magnetic field ends at magnetosphere distance of (~65,000 km) on the side facing the sun and the magneto tail (~6.4 million km) opposite side facing the sun, and then the gravity extends a bit longer the sun facing side, Example hills Sphere is roughly about 1.5 million kilometers from Earth from the side facing the sun and the hills Sphere can stretch up to around 3 million kilometers on the side that is the opposite side from the sun then the sun's gravity takes over? Like why does the gravity takes over the magnetic force on one side and the magnetic force taking over the gravity on the side that is facing against the sun?

Could it be possible that extreme heat and cold affect materials similarly to how the Curie temperature causes a paramagnetic metal to become less reactive at high temperatures, such as on the sun-facing side, while its paramagnetic properties become stronger in the magnetic tail side, where the magnetic field is more powerful than a gravity-measuring device? In both cases, we rely on two different materials to measure distinct properties of the Earth. A gravimeter, for example, measures acceleration and displacement to determine gravitational force using a physical spring mechanism. In contrast, paramagnetic metals, magnetism, and various radio or optical devices detect fluctuations in the Earth's electromagnetic field. Essentially, one method relies on a mechanical system, while the other depends on wave fluctuations and oscillations in an energy-based detection system.

But when it comes to the 3 most expensive gravimeter in the world such as Ligo in USA, Virgo in Italy and Kagra in Japan, they don't use normal spring mechanism but they use laser interferometer to detect the changes in the gravitational field waves or fluctuation to measure the distance galaxy such as the black holes or other cosmic phenomenon, these are the only 3 gravimeter in the world to detect changes in the energy based system to measure the gravitation which is similar to measure the energy based measuring system similar to electromagnetism, and using such machine the researcher have found that both gravity and electromagnetic field can produce when 2 black holes collides or when other cosmic events happens like supernova and magnetar. This 3 energy based gravimeter could help up bridge the gap in the question like could gravity and electromagnetism are two part of the same coin but it is the difference in the measurement device itself that changes our perspective and that in truth we actually don't know much about neither of them?

If such is the case then this final approach will give us a proper idea that maybe why the oscillation dilation due to gravity is more that has to do with electromagnetism and that maybe we also never properly understood gravity as well. Example there is a such phenomenon called the Zeeman effect. Where, the Zeeman effect happens when an atom is placed in a magnetic field. What occurs is that the energy levels of the atom split into multiple levels based on how the atom's magnetic moment aligns with the field, this causes a shift in the frequency of light the atom emits or absorbs, the reason for this shift is that the magnetic field changes the energy difference between the atomic levels, which in turn alters the frequency of the electromagnetic radiation when an electron moves between those levels. So, in simpler terms, the magnetic field affects how the atom "vibrates," changing the rate at which it oscillates.

Now, when we talk about oscillation dilation, instead of just thinking about time dilation, the different in external fields like gravity or magnetism could change the rate at which atoms oscillate. Just like how the gravity and magnetic field in the Zeeman effect causes a change in the oscillation frequency. In other words, depending on whether we are in a strong gravitational field or a weak one, the way atoms oscillate might change due to the strength of the gravity and electromagnetic field. For instance, in stronger gravitational or magnetic fields, atoms could oscillate slower, which might explain things like how gravity affects biological processes or why time seems to behave differently in different places in the universe. This idea of oscillation dilation is based on the idea that atomic oscillations aren't fixed they can change based on the field they're in, instead of just assuming that everything is about time dilation.

But that is not the last part but this will be the last. So if we apply all the knowledge of this part of the paper we can now understand that the 4th dimension is not time but an invisible interconnected platform that created an electromagnetic field and the changes in that electromagnetic field is what propagates through the entire earth to cause an almost similar pulling speed or velocity which we call gravity and that same gravity is what causes oscillation dilation. A good example is needed.

Imagine if we take an idea that the earth has a uniform gravitational zone of 10 m/s velocity, and the size and the mass of the earth is considered as 100 percent, if we take out about 10 percent of the earth uniformly then there is a possibility that the earth will lost 1m/s gravitational pulls force, similarly if we take another analogies like water, if one part of the water is take away then the rest of the part will immediately fill up the empty space but at the same time the overall water will lose it's weight.

Overall the main meaning is, if the oscillation dilation causes timekeeping measurement problems, and if gravity and electromagnetism are part of the same coin, and if the strong electromagnetic field causes the Zeeman effect on the oscillation of the atomic clock, and since time is a human made construct to measure the linear flow of events with precision, which cannot be a part of reality it self, and the fact we know from astronomical visual data how a galaxy can cause gravitational lensing and gravitational wave data from Ligo Virgo and Kagra found that both gravitational and electromagnetic fields happens at the same time, it then all comes down to one conclusion that light is indeed a variable factor, both inside and outside of the propagation material.

Dampening Materials Needed for Filtering Light Frequency

Maxwell's equations describe how an electric field creates a magnetic field and vice versa. However, they do not address thermodynamics or what happens to the transfer of electricity within a system when subjected to high and low gravity states, based on the 4th dimension it. This phenomenon was detected through atomic clocks placed at different altitudes, leading to the conclusions drawn from special and general relativity. Yet, we do not definitively know whether the concept of time itself is changing. In this case, we can conclude that time is not actually changing, rather, what is changing is the oscillation rate. If everything derived from Einstein's equations of special and general relativity is entrenched in a form of major dogma from my perspective, then we must seek solutions to at least establish a clearer understanding of whether the speed of one-way light is even measurable.

One experiment that comes to mind is to measure each visible frequency of the speed of light by filtering it as much as possible, one by one. In cases like this we must need another demonstration using a water analogy specifically, a high-water-pressure cutter. Well, the reason is that, just like a light can behave as both a particle and a wave at the quantum level, water itself can also exhibit similar behavior, it can create waves, and it can also become a high-pressure cutter, where immense pressure is applied to the water, making it pressurized enough to cut through metal. Not only that, but it can even cut through diamond. So, the question arises when water is not pressurized, what happens if we apply just a small influence? It will create waves, but when highly pressurized, it can cut through almost anything. We do not usually measure such extreme pressure being created using water, so what can we do in cases like this? One dampening method we can think of involves gathering as many insights as possible by studying the water pressure cutter machine itself. In such machines, there is typically a water bed below that is not extremely large, roughly 4 to 5 feet deep. Below this tank, there is more water. What happens is that when high-pressure water cuts something on the surface, any excess pressure that travels below the cutting surface automatically gets diluted or dampened. This dampening effect reduces the remaining pressure after the cutting process, helping to minimize damage to factory workers and materials.

If we were to measure the pressure of the water jet directly at the nozzle, any measuring instrument would be destroyed due to the extreme pressure. This makes direct measurement impossible. However, what we can do is measure the weight of the container that holds the excess water. The excess water will exert a certain weight on the container, allowing us to approximate how much pressure from the nozzle has been distributed throughout the system. Now, if we were to apply this same concept to the speed of light itself, we might gain some insight into how we could use this phenomenon. By utilizing this phenomenon, we might be able to measure the speed of light by dampening each frequency.

Basically, since the dogma fact that every frequency of light travels at the same speed, then it could mean that one frequency is might be causing another frequency to move faster like one is pushing the other from the source. This would suggest that if the number of frequencies from the source is high, then the frequencies emitted from the source will be pushed outward at an extremely fast rate.

First, we need a range of laser light, spanning from infrared to the visible spectrum and from the visible spectrum to the ultraviolet spectrum. What we must do is measure the frequency of each wavelength and determine the total amount of heat that is absorbed by a specific object when the laser light is projected onto it. Naturally, the surface should not be reflective, as we do not want light to bounce back. Instead, we need a rough surface to absorb the maximum amount of light and minimize reflection. After measuring the temperature and frequency, the next step is to introduce a series of filters. Each time we add a filter, our primary goal is to lower the frequency of the light spectrum so that when the overall frequency is reduced, we should observe a corresponding decrease in temperature. Now, why is this important? The key question is whether light can push one photon to another increase the overall heat in the area where it is projected. If this is true, then when light is emitted from a source and directed at an object, the temperature should increase as more light of the same frequency is projected onto that area. This would lead to an overall rise in temperature within that rough surface (as opposed to a reflective one).

Another experiment idea is what would happen if we were to direct multiple infrared beams at that same area? Ideally, we should observe that the sources of light remain invisible. However, if multiple beams of the same infrared frequency are directed at the object, the question remains will this increase the frequency near the specific area where the light is projected? And if so, will this result in the area becoming illuminated?

In order to truly understand the one-way speed of light, we must first analyze each spectrum of light's speed. If each spectrum represents its own speed limit, then what happens when multiple ranges of light from the source are detected separately? Could it be possible that the speed itself varies across different frequency range?

This is highly important because when we measure the speed of light using Maxwell's equations, we always obtain an averaged value of the speed of light across all frequencies. This, in itself, is contradictory because Maxwell's equations describe how an electric field generates a magnetic field and vice versa, but they do not account for thermodynamics or oscillation dilation caused by high or low gravity. If we were to conduct this 2 experiment by filtering out different frequencies of light and observing the speed of each, we might gain new insights.

Now, from a quantum perspective, this effect could cancel out, but that is only at the quantum scale. We do not yet know what would happen at the macroscopic scale, where physical interactions can appear significantly different from their quantum counterparts. If this is the case, then this experiment could provide strong evidence regarding whether multiple lower-frequency waves can cause the illumination of an object. Additionally, it could demonstrate that when multiple lower-frequency waves interact, they can generate higher-frequency waves, which could indicate an increase in the speed of light itself.

So overall, because Maxwell's equations do not account for thermodynamics or what happens in different gravitational scenarios, there might be a possibility that the frequency detection of the speed of light when calculated using Maxwell's mathematical equations only provides an average speed of light rather than a varying speed of light. Just by using radio frequency measurements, we may only observe an averaged value rather than true variations in speed across different frequencies.

Maybe when light reaches a certain frequency range, only then can it cause illumination on the object it is directed at. As a result, if we were to use an infrared camera to observe the temperature differences across the spectrum, we would obviously detect higher temperatures. However, when the surface temperature rises to a certain point, only then can we observe the reflection of an object. Otherwise, when the temperature, speed, or frequency is insufficient, we cannot detect the object using the human visible spectrum. Instead, it would only be visible using infrared sensors. This means that if we are measuring the speed of light within the visible spectrum and it remains within a specific range, then the speed of light itself must vary at different frequencies. Furthermore, the speed of light would also vary depending on the gravitational field and velocity due to the Zeeman effect on the electromagnetic spectrum.

This raises the question: why do we perceive the speed of light as the ultimate limit? Perhaps the reason is that any material attempting to travel faster than the speed of light would require an extreme level of durability—far beyond the capabilities of our current technology. As a result, if an object were to travel at exactly the speed of light (not just 99.9999% of it but precisely at that speed), the object itself would essentially melt and radiate its own energy until it cooled down while simultaneously slowing down. However, this limitation is based on the gravitational field we experience here on Earth. If we were to consider the gravitational fields of other solar systems and galaxies, we would likely see that our main problem lies in how we define what is "normal" and what is "abnormal." Just because we live in an environment where life can exist comfortably without extreme conditions does not mean that the entire universe operates under the same physical constraints or sequences. But we must also be careful about this part because when we say we need to measure the speed of light, we are once again talking about the reflection of the radiation field of the object that is reflecting the light whether it is in the infrared, visible, or ultraviolet spectrum. At the end of the day, what we are measuring is how the object itself reflects light when any mass interacts with it. Rather, there might be a possibility that the speed of light is actually faster than what we have measured so far. What we have been measuring up until this point is not the true one-way speed of light but rather the two-way speed of light. Essentially, this means that a certain range of light itself causes the particles on Earth around it to heat up enough to emit their own light on the surface of the object like dust particles on earth. When we shine infrared light on an object, it does not reflect anything back in the visible spectrum because the frequency is not high enough to trigger the visible spectrum of the human eye. This leads to the question whether the one-way speed of light will always be faster than the two-way speed of light. The reason is that what we are actually measuring is not the speed of light itself but rather the speed of reflection.

We should not confuse the reflection speed of light with the one-way speed of light. Because we have measured the speed of light in the form of reflection, we have developed a major misunderstanding when galaxies appear to move away faster than the speed of light and ended up assuming that the space is expanding. What we are seeing is the reflection of the speed of light and the emission of light from nearby sources the friendly old dust particles on earth. What does this mean? It means that when a torch is turned on, it first needs to be excited by electricity from the battery. Once it begins vibrating at a certain frequency range, it has accumulated enough energy to transfer energy to its nearest neighbor such as friendly neighborhood dust particles on Earth. However, these friendly neighborhood dust particles are not as abundant in outer space. This is why astronauts do not see visible rays of light unless they are near a large celestial body, such as a planet, asteroid, moon, or even the Sun. As a result, what we are seeing is not the sun emitting light, but rather the planets reflecting light. This happens because planets have absorbed enough energy from the Sun to emit some energy back into their environment. Again, this is not the one-way speed of light but rather a reflection of the speed of light. Maybe this is exacytly what a black hole is a massive something star that absorbed all the nearest dust particle due to its immense gravity.

There may be a possibility that is not often discussed in mainstream media or scientific journals—that the speed of light in reflection is always lower than the true one-way speed of light. The reason for this is that measuring the true one-way speed of light would require extremely powerful equipment capable of detecting even below the femtosecond scale changes in a high-speed camera. However, an experiment conducted by a certain YouTuber using an ultra-fast camera already provided some anomaly. what happens in that experiment is that when a light source is turned on, it first creates an angle where the energy is supposed to travel. Once the dust particles within that area become excited enough, they then produce a visible ray of light. At this point, one might argue that we have already measured the speed of light by reflecting it off the Moon and observing that it takes a few seconds for the light to travel to Earth and back. However, the question remains why we did not discussed that excitation takes time? When light interacts with a surface, it first needs to excite the atoms before they can reflect the energy back. Only after this process occurs can we measure the speed of light in visible spectrum. The key point is that this per-excitation moment happens within atoms happens at such a rapid rate that we may not have properly captured it or perhaps we have not considered it from this perspective before, as a result, we continue to assume that the speed of light remains constant in every frame of reference.

If Einstein's equations of special and general relativity are correct, but instead of time dilation, we consider oscillation dilation, then what would happen? If we replace time dilation with oscillation dilation and apply it to gravitation, we will see that in high-gravity environments the speed of light decreases, while in lower gravity environments the speed of light increases. Maybe the speed of light we are measuring is not the true one-way speed of light but rather the two-way speed of light, which is based on reflection. The one-way speed of light must be much faster than the two-way speed of light because we are not actually measuring the speed of light itself. Instead, we are measuring is the energy delay that occurs due to the absorption of energy on the surface level of dust particles or other reflective surfaces.

Explaining Wave-Particle Duality with Bricks and Water Analogies

So, the flow of energy within a magnet means that energy has a specific direction or pattern of movement. If this flow is disturbed, the magnet will naturally try to rearrange itself simple as that. However, since this topic is about the wave-particle duality of light, the question remains: how did the newer theories, which turned out to be more accurate than the old ones, emerge? And yet, people still discuss older interpretations, such as the idea that the act of measurement collapses the wave function. The explanation often depends on who is presenting it. If you search for this question on YouTube, you'll likely find three or four different explanations. One common claim is that the act of measurement collapses the wave function. What does this mean in the context of the double-slit experiment at the quantum level? In this scenario, whenever someone attempts to measure the superposition of energy flow from light, the interference pattern disappears, and light behaves like a particle. Another explanation suggests that the measurement device itself is responsible for this behavior. The device introduces too much energy into a specific area, disrupting the flow pattern and causing light to exhibit particle-like behavior. These two interpretations are presented by so many different people that I have lost count of how many variations exist.

Because light behaves similarly to water in terms of how it travels from the source to the object it interacts with. As a result we need to analogies to understand this.

1. How water waves enter a brick.
2. How water particles break the brick.

First, let's start with the wave pattern.

If we take a large bowl of water and a brick the type used for building construction and place the brick inside the bowl, submerging it only halfway, what happens? Once the water settles, if we disturb the surface by dipping the tip of our finger, waves will form. These waves won't just move forward, they will travel in all directions front, back, left, and right reaching all sides of the brick. This is, of course, just an analogy. In the case of water, which exists at a macroscopic scale, we are creating waves using something large compared to quantum systems. However, in the quantum state, wave functions occur naturally. Now, let's consider another important phenomenon at the macroscopic scale. If we place a brick in a bowl of water, over time, the water will slowly seep into the brick, saturating both the outside and the inside. This is a fact that we can test it our self by placing a brick in water and observing how it absorbs moisture. This happens because the frequency at which water enters the brick is very low. Similarly, light also enters certain medium. The question is at what frequency does it enter? If it enters at a very low frequency, such as in the radio wave range, it can pass through brick walls and buildings as if they weren't there. Why does this happen? It occurs because low frequency waves interact with electrons at such a slow rate that the electrons are not significantly disturbed. As a result, radio waves can travel long distances through obstacles without being noticeably affected. What about at the quantum level? At the quantum level, if the energy is not high just at a normal level the light behaves as a wave. This is a fundamental characteristic of nature. While we do not fully understand why wave patterns occur, we do know that they are easily detectable with modern scientific instruments technology that did not exist in earlier times when even the concept of electricity was unknown. When the energy in light is low, it does not cause significant heating of materials, unlike infrared radiation, which occurs at wavelengths above 700 nanometers. At these low frequencies, light waves travel through materials without exciting them enough to emit their own light. As a result, we do not see reflections at such low frequency. In simple terms, different frequencies of light have different speeds.

But what happens when light interacts with a medium that is being observed? At the quantum scale, this interaction leads to an extreme energy gain. Before explaining why this happens, we first need to address how most people discuss wave-particle duality. In most cases, when people try to explain why light exhibits wave-particle duality, they often fail to mention the instruments used to measure this phenomenon. These observations occur at the quantum level, meaning we are dealing with an extremely small scale where even the slightest disturbance can cause massive fluctuations, potentially rendering the data useless. If that's the case, the first thing we must discuss is the tool of measurement itself. If the measuring device itself relies on electricity, then obviously, it will cause wave function collapse it's as simple as that. In such cases, the issue is not the act of observation itself but rather interference caused by the measuring device. This interference introduces high-energy states into a low-energy environment, disrupting the wave nature of light and causing it to behave like a particle. Since these quantum effects occur at an extremely small scale, they are not detectable by the human eye. But how can we relate this concept to our brick-and-water analogy?

Here we will understand how a water jet cutter can cut a brick. When water is in a low-energy state and a brick is placed in it, the water slowly seeps into the brick, saturating both the outside and inside. But what happens if we pressurize the water to 50,000–100,000 PSI? The answer is simple it will cut through the brick as if it were made of soft material. In fact, it can even cut through diamonds and metals with ease. What can the brick do to stop this? Nothing it will simply be cut without much resistance. Now, let's connect this to light. When light is highly energized due to an observational device introducing additional energy into the system, it behaves like a particle. This is similar to water in a bowl when it is not highly pressurized, it seeps into the brick, just like radio waves which are long-wavelength forms of light passing through walls. If the building had a sensor, it could detect these waves, but they would still pass through. However, if the energy is highly concentrated, it will behaves like a water jet. Similarly, light at high frequencies behaves more like a particle than a wave. Normal water behaves like a liquid field when in a bowl, but when highly pressurized, it becomes a cutting tool. It means that when light or its source vibrates at an extremely high frequency, it produces not only a high energy density light but also a high propagation speed. And what happens when the speed increases? In the case of light, which is pure energy, a higher frequency results in greater energy transfer. The highest-frequency light, ultraviolet (UV) rays, is capable of burning through materials because it delivers a huge amount of energy in a very short time. This high frequency also increases the speed at which light propagates from the source to the material it interacts with.

So why is this important is the water wave and water jet cutter analogy is important? Because without these analogies, people would still believe that every frequency of light has the same speed, even though each frequency carries different energy level. How can the scientific community even came up with this theory it is ridiculous. How can frequency increase without an increase in speed? Because of not being able to understand the Maxwell equation properly.

We know in nature and technology an increase in frequency means an increase in speed, an increase in energy, and an increase in many other factors. We have never heard that an increase in frequency only affects energy levels inside light, but not the speed of light itself. How did scientists even reach this conclusion? Did they not fully understand why Maxwell's equations work or the fact that they do not account for thermodynamics? Or perhaps the issue lies in how we measure light. Have we truly measured the one-way speed of light? Because we know, most measurements of the speed of light relied on reflection, not its one-way travel. For years, people have stated that the speed of light is approximately 300,000 kilometers per second, but how was this determined? Through reflection, not by measuring light's one-way journey. If we relied on reflection, we must also acknowledge that reflection requires the object itself to be in a higher energetic state just enough for its surface atoms to vibrate and emit light back, making it visible to the human eye. That is essentially how we perceive light. So, when we discuss the visible spectrum, we are essentially measuring the time it takes for electrons on the material's surface to become excited enough to emit its own light and produce a reflection. This is indeed a new concept to understand and indeed a new perspective.

So what does this have to do with wave-particle duality? If light behaves like a particle due to high energy concentration from its source of emission, then applying this idea at the quantum level where we observe a similar reaction means that light's behavior depends on its frequency. In other words, higher frequency means more energy, which in turn influences whether light behaves as a wave or a particle. It's as simple as that. It could also mean if the measuring device is far enough we might see the same wave interference in the double slit experiment. When we are measuring a high energy source we need a larger distance to view the full effect.

How can we test this? We can analyze whether the frequency of light itself causes a particle-like or wave-like effect. If the source is highly energetic, light behaves like a particle. If the source is not highly energetic, light behaves like a wave similar to radio waves. So, what does all of this mean? When we, as human beings, discuss certain scientific subjects, we obviously need another important element open dialogue with other scientists to explore different perspectives. The speed of light was first measured by Nobel Prize winner Albert A. Michelson, and later, Einstein's equations of special and general relativity claimed that space and time curve in such a way that the speed of light remains constant in every reference frame.

But how does that even make sense? Whenever a new scientific discovery is made, there should be counter arguments and alternative theories to challenge and refine the original claim. If an alternative theory is supported by valid experiments, then we can truly assess whether the original claim was correct or flawed. Yet, Einstein's theory states that the speed of light remains the same because space and time curve which also implies that time is the fourth dimension according to special and general relativity. If time is truly the fourth dimension, then why does the nature can continue without a clock? But what we actually observe is that oscillation rates of atomic clocks change under different gravitational conditions. So, what does this imply? Instead of blindly accepting that "time is the fourth dimension", we should have asked a more fundamental question, why does electromagnetism behave differently in different gravitational zones? The real reason atomic clocks tick differently under gravity is because the electronic components in an atom oscillate at different frequency, depending on the gravitational field they are in. But no one asked this question. Instead, they immediately accepted the existing theory of space time curving, as though it was the ultimate truth.

Now, we do know that the internet didn't exist back then, but if it had existed during Einstein's time, his equations of special and general relativity would have been heavily scrutinized. Unlike in the past where people blindly accepted whatever scientific claims were made, today the intern*et al*lows both experts and skeptics to challenge ideas in real time. If I presented my perspective today, smart people would at least consider the possibility that I could be onto something. But the so-called PhD those who refuse to question existing theories would immediately dismiss my argument and insist that I am wrong.

So, what can we learn from this paper? When the source of light emission has an extremely long wavelength, it falls into the radio wave category, where it doesn't cause any noticeable effects on the human body or the surrounding environment. Everything behaves as if nothing is happening when the wavelength is extremely long. However, when the wavelength becomes shorter, it begins to cause heating effects. Now, if anyone tries to refute my explanation by claiming that Maxwell's equations already account for thermodynamics, let me clarify Maxwell's equations only describe how electric fields create magnetic fields and vice versa. They do not address thermodynamic effects or the gravitational effect on atomic clock. No matter how much we try to cool the components used in radioactive detection machine, the energy frequency of incoming light still plays a crucial role. Based on how much energy or frequency of light enters the radioactive measuring device, it will inevitably cause heating, even if only for a short period. This heating effect allows us to measure an average result for each frequency. As we know, when the energy frequency increases, radioactive materials absorb more energy and heat up. When this happens, the efficiency of electrical components decreases, making electricity flow less efficient. As a result, when higher energy frequencies enter the radio device, they automatically alter the frequency response, meaning we only get an average speed as a result.

What does this mean? We should never have used a radio measuring device to claim that the speed of light is the same for all frequencies. Now, measuring the speed of light was a bad idea of course, it was a crucial experiment. However, we should not have blindly accepted the conclusion that light always travels at the same speed for all frequencies. This assumption is simply might not be the truth.

What can we learn from this?

From this discussion, we can conclude that there is still a possibility that the frequency of light is directly correlated to its speed. If experiments using a radio device always yield the same result, then this suggests that our method of measurement is flawed. Maxwell's equations never accounted for thermodynamics they only describe how electric fields generate magnetic fields and vice versa. Moreover, Maxwell's equations do not address how electromagnetism behaves in different gravitational fields or the zeeman effect in the atomic clock.

This is why we need a new type of equation—one that integrates:

- Thermodynamics
- Electromagnetic pressure
- Gravitational pressure
- Zeeman effect
- Inverse square law

However, developing such an equation is a task for future scientists and students, not me for I am a school dropout, and it's unlikely that I will personally be able to formulate the necessary calculations for these theories. Instead, I encourage others to develop a mathematical framework that addresses the gaps in Maxwell's equations. If we can successfully modify Maxwell's equations to account for thermodynamic and gravitational influences and the zeeman effect in an atomic clock, we will take a significant step forward in understanding how light truly behaves in different environments. Such advancements could eventually lead to the development of devices that automatically synchronize themselves based on their surroundings a breakthrough in both theoretical and applied physics.

Gravitational Lensing Effects in In G Force Pod

The reason for conducting this experiment is that it might provide insight into how gravitational lensing occurs and how it could be caused by pressure created by gravity and high velocity. By performing this experiment, we can better understand the phenomenon.

Celestial objects exhibit a certain type of gravitational lensing effect, but many people struggle to grasp how this effect occurs. According to Einstein, gravitational lensing happens due to the curvature of space-time. However, my perspective differs. In my view, space and time are not curving. Instead, a certain type of electromagnetic pressure is being generated due to the gravity of the planet, celestial object, or even the black hole formation itself. Gravity is indeed involved, but it is not because space and time are curving. Rather, what actually happens is that gravity creates a specific effect within the atom itself. This, in turn, alters the oscillation rate within the electron. Since light is part of the electromagnetic phenomenon, and since all celestial bodies have electromagnetic fields, which in turn create oscillation dilation, the next question we should ask is: how can a black hole create such an immense electromagnetic field that causes light to bend and creates the lensing effect? Furthermore, the role of pressure created by heat is also crucial in understanding gravity. The stronger the gravitational field, the more it compresses the surrounding magnetic field, forming layers around the celestial object. As a result, regions with stronger gravity experience higher pressure and heat. For example, pressure near the surface of a celestial body is significantly higher compared to mountainous regions, where gravity is lower, and pressure is also reduced, as is heat.

The key question here is: what type of gravitational lensing are we discussing? Is it an experiment related to general relativity, or is it a special relativity experiment that deals with velocity? Of course, we must understand that it is nearly impossible to create a lensing effect due to gravity in a laboratory setting because the amount of mass and size needed to generate such an effect are beyond human capability. Instead of attempting this, we should focus on high velocity, which can also contribute to gravitational lensing through outward gravity.

What does this have to do with pressure? If you refer back to the previous section of this paper, you will see that the fourth dimension is not a space-time continuum. Rather, it is an interconnected platform where the electron, which exists in a cloud-like atomic form, is not influenced by space-time curvature. Instead, everything depends on how Earth's gravity and magnetism affect the oscillation rate of the atomic structure. Near Earth's surface, the oscillation rate of atomic structures is lower. However, when an object is at a significantly higher altitude, where gravity is weaker, the oscillation rate increases. We also know that high velocity can have an effect on electrons in an atomic clock, causing the clock's oscillation rate to slow down.

First of all, in order to begin this experiment, the first step is to consider a similar method already used by the Air Force and military personnel. This method is known as the G-force training pod. Now, to properly demonstrate what is happening, let's start with a basic concept. We know that 9.8 meters per second squared is equivalent to 1G. Different planets have different G-forces. The Moon has a lower G-force, while planets larger than Earth have higher G-forces. Now, let's consider what happens when a fighter jet travels at very high speed. The pilot inside the jet experiences intense G-forces. But why does this happen? The reason is that in a fighter jet, the more fuel that is burned, the greater the forward acceleration. The greater the forward acceleration, the more momentum is generated, and as momentum increases, it creates a backward pressure, which in turn generates an artificial G-force.

For this experiment to take place, the first thing we need is a highly durable, round G-force pod. This pod will be attached to a spinner that moves at a certain velocity while remaining in a fixed position. At the end of the spinner, the pod will be securely attached. In addition to the pod, we will require various types of sensors. The first step inside the pod is to eliminate any refraction.

To achieve this, we will first remove all air molecules inside the pod. However, we will not remove the air molecules completely; instead, we will also heat the pod to a specific temperature. By doing this, we will remove as many air molecules as possible, significantly reducing any potential refraction to the point where it becomes almost negligible. The first effect we should observe is the visible light becoming slightly less visible. Only then will we know the vacuum machine is doing a splendid job.

Once this step is complete, we will attach a specific frequency of laser light, which will be aimed from one side of the pod to the other as many times as needed, while ensuring that it does not compromise the durability of the testing pod. This setup will create what is known as a highly negative pressurized chamber. But why is heat necessary? Because when it comes to real gravitational lensing, what we do know is that one part, which is toward the sun, is the hottest, and the other part is the coldest. We will also need to monitor which side stays colder and which stays hotter during the test. This will help us understand the effects we will be observing. The main focus will be on how much light bends in a high-velocity environment.

Now the question is: will this experiment work? Of course not. We also need a very powerful magnet because we know that we use two different devices to measure gravity and electromagnetism, and how the external electromagnetic field causes a change in the spectral line of light, creating 3 in normal conditions and more than 3 in abnormal conditions. The Earth's electromagnetic field might also cause a change in the atomic clock through the Zeeman effect, which is why we must also use a high-power magnet to see how much change happens to the light while it is moving in a hot, high-magnetic environment. This will help us determine if we can replicate the result or not. The double-slit experiment's interference pattern does not come from a moving experiment in a variable G-force environment, but in a stationary environment. So, the question we should be asking is: how much can we replicate the similar result with high velocity?

If oscillation dilation occurs due to high velocity and high gravitational environments, where the oscillation rate slows down, then this leads to an important conclusion:

Gravity can be created in two different ways:

1. By a large quantity of mass being concentrated in the vacuum of space, such as celestial objects like planets, moons, the Sun, magnetars, and even black holes.
2. By high velocity, which can induce an effect similar to gravity.

We have already observed that the oscillation rate of an atomic clock slows down in satellites due to high velocity and gravitational influences. By measuring these effects, we can finally understand that when a rotating object moves in a specific way, it can also create artificial gravity, known as outward gravity. If outward gravity and velocity can generate artificial gravity and also cause oscillation dilation, meaning a slower oscillation rate of electrons in an atomic clock, then there is no doubt that this experiment might bring us a new idea. What I have stated in this part of the paper is something I am not personally capable of conducting. However, if any world-leading scientific institution were to carry out this experiment, collect data, and observe whether a straight laser beam bends even slightly due to high velocity, it would prove a crucial point: that gravitational lensing might be caused by the flow of energy being bent due to high galaxy rotational speed, the high amount of magnetism, and gravity from the black hole. Additionally, dark matter might actually be an invisible electromagnetic field that causes more spectral lines to form as nearby galaxies emit their light which in terms causes gravitational lensing due to the zeeman effect

The lensing does not need to be extreme; even the slightest deviation would confirm that oscillation is happening due to pressure. Furthermore, this pressure affects the electromagnetic phenomenon of light, making it susceptible to artificial gravity just as it is affected by natural gravity. If this experiment is conducted properly with different settings, we can finally dismiss the idea that oscillation dilation occurs due to space-time curvature, and propose that gravitational lensing might be caused by energy being concentrated in a spherical shape by a strong magnetic field, which in turn causes the Zeeman effect to bend the light. Additionally, this could challenge the idea that the speed of light is fixed at 300,000 km/s, suggesting instead that the speed of light pure energy might have a variable speed factor. The 300,000 km/s might simply represent a reflection limit of surface-level interactions in certain gravity-bound environments, such as Earth, where gravity is approximately 9.8 m/s^2.

Because light is an electromagnetic phenomenon, it can also be influenced by gravity and magnetism, which causes the Zeeman effect. Anything that has mass and energy will always be affected by both gravity and electromagnetism. Gravity is not just an attractive force on mass; it also exerts attraction on anything that possesses mass and energy.

The concept of centrifugal force is valid in classical mechanics, but it is crucial to introduce new terminology to differentiate between forces that may appear similar but operate under different principles. While centrifugal force is commonly understood as the outward force experienced by an object moving in a circular path, this explanation does not fully address the complexity of forces at play when considering velocity, which is a more generalized and directional concept. Velocity can occur in any direction, not limited to rotational motion, and when an object accelerates at high velocity, the resulting force resembles gravity, pushing objects outward, backward, or downward depending on the context. This is not the same as centrifugal force, which is specifically tied to rotational motion. Using the same term can cause confusion when understanding how high-speed travel or acceleration affects gravity-like forces. To resolve this, I propose that the force generated by high velocity should be termed "artificial gravity," as it mimics the effects of gravity while being induced by motion rather than mass. The distinction is vital because, while centrifugal force is a specific case of outward force in circular motion, artificial gravity from high velocity can occur in any direction. Whether an object accelerates linearly or along a curve, the effects on the occupant or object within the system resemble gravitational force but arise due to motion rather than attraction by mass. The term "artificial gravity" provides a clearer conceptual framework for discussing these forces and helps avoid ambiguity.

Artificial Intelligence for Investigating Invisible Light

The first thing we must understand is that if we ever try to measure the speed of light in reflection using ultraviolet or other types of invisible light detection method, we need to acknowledge that we cannot see it properly. Obviously, we have to use machines or something that can detect light very fast, such as a high-speed action camera. But then again, another question arises is what would happen if we tried to measure the speed of light in the ultraviolet range and detect the temperature of the area where the light is being pointed? Can we actually see the difference with our own eyes? Obviously, we will not be able to do that. So, what can we do? The best solution would be to train an AI capable of detecting extremely fast movement while measuring any ultraviolet or infrared light spectrum—both of which are essentially invisible.

Why does this matter? Why should we need an AI system if we can see things for ourselves? The main problem is that when we try to detect something that is essentially invisible, we use filters to interpret what we can see through them. But here's the real question: how do we define what we see as what it should be? Or, to phrase it differently: why must something exist within the human-visible spectrum in order for us to detect it? Obviously, if we ourselves cannot see what is happening, then how can we truly know how it is happening? It is not like reality will stop existing if we don't observe it.

In cases like this, the question remains should we rely on the data of our observation? At the end of the day, when we think about something like this, we must understand that when we filter out any light frequency, we are also filtering out a large quantity of data that was originally recorded. And when we attempt to interpret this data using our monitors, the real question becomes: what are we actually looking at? Are we seeing the pure data, or are we only seeing the filtered version of it? If we ourselves are the limitation of our own eyes, then how can we say that our eyes are actually detecting the things we should be detecting? And how can we be sure that whatever we are detecting within the visible spectrum is the actual thing? It doesn't make sense.

Now, because artificial intelligence related technology is becoming far more useful these days especially after ChatGPT came out, the reality is that we should rely more on a trained model of artificial intelligence. AI can analyze the raw data captured by the camera, rather than the filtered data we see on our monitors. At the end of the day, if we cannot see the invisible spectrum and instead rely on our monitors to review the events, then obviously, we are also not detecting the changes happening within the invisible spectrum as well. In cases like this, we need to use artificial intelligence. Imagine a large quantity of data being collected by the camera sensor itself. This camera gathers raw data, and then we manipulate that data to make it understandable on our monitors using filters that are essentially human-made. However, when we apply these filters, we automatically lose access to certain parts of the spectrum. This means we will inevitably missing a significant portion of the spectrum beyond the visible range, such as ultraviolet and infrared light.

Since this is a real fact, the question remains is why are we still trying to gather data by human standards when our standards are not universal? If we compare human vision to that of animals, some animals can see more colors than we can. So, if they can perceive more colors than humans, then who are we to judge that we are superior when it comes to interpreting invisible data? This is exactly the area where, if we try to measure anything, the first thing we must rely on is an artificial intelligence model. It should be able to analyze the vast amount of data that gets filtered out simply because a human is trying to decipher it. AI will be able to understand what is happening in the data we are observing through our cameras and monitors. Even though these devices are capable of detecting far more than we can, if we ourselves cannot perceive changes in the visual spectrum, we should not rely solely on human capabilities. In this era of intelligence, AI can provide a much better perspective.

A certain YouTuber AlphaPhoenix who created a video titled "I Built a 1,000,000,000 FPS Video Camera to Watch Light Move". There he was able to capture the speed of light using an extremely slow motion camera method. However, while observing that video, even at slow motion, it wasn't slow enough for me. So, what I did was lower the speed of the video to 0.25x at the 25 minute and 12 second mark, there I noticed something very interesting in the pixels. What I saw was that on the right side of the pixel at that time frame, a portion of it was displaying a different color gradient. At that specific area, where the pixel color gradient was changing, I noticed something else a few microseconds later as the light was coming out from the ultraviolet light emitting diode, the right-side pixel area was getting darker even before the ray of light even appeared. So, the question remains what is that? Obviously, it appears to be some kind of change occurring before the ray of light itself appeared or more like the ray of reflection of the dust particle.

Now, some might say that this could be due to the YouTuber using a very low-quality camera or that the speed of the recording device was too slow, which prevented it from capturing anything properly. Others might argue that the equipment he used was not very good, and therefore, his method of experimenting with the speed of light using his setup should not be taken into account. This is what the majority of the scientific community would likely claim. Even I would say that, yes, conducting high-quality research with low-quality equipment is not ideal. The equipment itself would not be able to provide a better understanding of what might actually be happening. However, while some in the scientific community argue that there is still a bigger problem. If this YouTuber was able to measure something and present it to us, why hasn't the scientific community shown us something as extraordinary as that? It's similar to situations where the government or military develops highly advanced technology, but it only becomes publicly known 20 or 30 years later. So, the question remains could it be that the people working with the government already know that the speed of light is not a fixed concept measurements conducted by Albert A. Michelson? Could it be that government related scientists are aware that time itself is not real and that time dilation isn't real and that oscillation dilation is the real concept to explore?

Why haven't we seen any research from the scientific community despite their significant funding measuring the speed of light with extreme accuracy in the infrared or ultraviolet spectrum? Could it be that something within these spectrum is actually moving faster than the speed of light as we currently understand it? Perhaps what we perceive as a ray of light is actually caused by excitation within the nearest neighboring dust particles, making them illuminate and create what we call a "ray of light."

What I am saying is that before this YouTuber even made his video on how he was able to capture the reflection of the dust particles, and observed the pixels at the 25-minute and 12-second mark, it gave me a certain idea of what might be happening is the actual one-way speed of light is much faster than the visible spectrum of the speed of light. This would explain why that specific area was physically heating up due to the ultraviolet light-emitting diode that the YouTuber used. If technology these days is capable of slowing down light with such speed and precision, so why aren't scientists allowing us to see this experiment with cameras that are significantly faster than the one used by the YouTuber?

If we rely on our eyes or the cameras we use and then filter the data to match our perception, how can we confidently say that the speed of light reflection accurately represents the true speed of light in one direction? How can we be so sure? We should be ashamed of ourselves for assuming that people who have spent a large portion of their lives and large amounts of money developing expensive machinery are either hiding the truth from us or simply being ignorant. The problem is that many continue to cling to the belief that all scientific interpretations from the past are 100% correct and should not be questioned. If this is the case, then the overall point is that we must use artificial intelligence to gather more data on this topic. If we do not utilize AI to capture and analyze raw data without applying human made filters then we will never uncover the true nature of light. As a result, we will continue to rely on Einstein's equations, which suggest that time and space contract due to length contraction because the speed of light remains constant in every frame of reference. However, when discussing the concept of a frame of reference, we often forget a crucial point, if human beings cannot perceive beyond a certain visual scale, then no matter how much time passes or how close we get to the speed of light, we still won't be able to see different types of light because our eyes naturally filter them out. Furthermore, the devices we create also apply similar filters. If we do not address this problem using artificial intelligence, then our understanding of the true speed of light will forever remain a mystery.

The Influence of World War II and Scientific Propaganda

The World War II event that used Einstein as a form of propaganda to showcase the USA's technological superiority in human history. So if we look at Einstein's equation of length contraction and time dilation, and if we study it, we eventually come across some of the terms that Einstein himself stated. What are they, you might ask? Something like length contraction, the universe expanding and stretching like a balloon, and the bending of time and space to ensure that the speed of light remains the same.

Now, one might think, OK, these are common facts, and how can we see this as fact when we ourselves are not actually moving at that speed? So in cases like this, what comes to mind are basically mental thoughts. Anything that goes beyond a person's imagination and cannot be proven often comes with mental thoughts. A very good example is saying time dilation instead of saying oscillation dilation, like it is common sense, we know that if a machinery is moving faster or slower in different gravitational zones, then it means that somehow the internal components are being affected by the gravitational field created by planet earth. If that is the case, then how can we say that it is actually time that is dilating and not some other electrical or quantum factors that are changing because of gravity? Why is time dilation and length contraction, space and time bending, so popular in mainstream media, unless it was somehow inflated or manipulated by large companies or maybe a country funding this point of view? Only then can something like this few factors come into play.

So, I tried to do a little bit more digging in terms of why, despite so many other scientists existing back then, no one refuted this point of view. What happened in between? Only then did I realize how it was not Einstein himself, but rather the country he was living in, that basically used their propaganda to prove they had the best scientists in the world, capable of doing the best things from a humanity perspective things no other country could do. Just look at World War II, how long it was active, and how Einstein essentially warned the USA government about the incoming threat from the Nazi army. The Nazis were trying to create the nuclear bomb, and the USA was also preparing to make their own bomb, which they eventually used on Japan in Hiroshima and Nagasaki to end World War II permanently.

The story of Albert Einstein's role in the development of the atomic bomb is a complex one, marked by a mix of scientific discovery, wartime necessity, and political manipulation. While Einstein himself did not directly participate in the creation of nuclear weapons, his name and scientific achievements were harnessed by the USA. government in ways that played into the wartime propaganda machine, both elevating his fame and serving military goals.

In the late 1930s, the discovery of nuclear fission raised the possibility of nuclear weapons. Fearing that Nazi Germany might exploit this discovery, Leó Szilárd, a Hungarian physicist working in the USA, began warning the American government about the potential dangers. Szilárd understood the urgency of nuclear research and recognized that the USA needed to act quickly to prevent Germany from developing an atomic bomb. However, as an immigrant, Szilárd knew his voice would not have the same weight as a renowned figure like Albert Einstein. In 1939, Szilárd convinced Einstein to sign a letter addressed to President Franklin D. Roosevelt, warning of the nuclear threat and urging the U.S. to initiate its own research. This letter marked the beginning of the USA nuclear weapons program.

Roosevelt took the warning seriously and, by 1942, the USA initiated the Manhattan Project, a secret effort to develop nuclear weapons. The project culminated in the successful detonation of the first atomic bomb in 1945. Though Einstein was not involved in the Manhattan Project due to his pacifist beliefs, his warning was crucial in jump starting the program. His $E=mc^2$ equation, which explained the relationship between mass and energy, provided the theoretical foundation for nuclear fission.

Einstein's fame, however, became entangled with the bomb's development. His name was used as a propaganda tool, associating his brilliance with the success of the American war effort. Even though Einstein did not work on the bomb itself, the USA government made strategic use of his iconic status, portraying him as a key figure in the creation of nuclear weapons. This association reinforced the image of America as a technological leader, and Einstein became a symbol of scientific achievement that contributed to the country's wartime propaganda narrative.

The irony was evident in Einstein's later reflections. After the bombings of Hiroshima and Nagasaki, he publicly expressed regret about his indirect role in the bomb's development. However, despite his personal remorse, the USA continued to use his image in support of its nuclear agenda. His name was synonymous with the breakthrough that helped end the war, but also with the destruction that followed.

In the end, Einstein's involvement in the atomic bomb story was a tool of wartime propaganda, strategically amplified by the U.S. government to symbolize the country's dominance in science and technology. His legacy became intertwined with the moral complexities of the nuclear age, where his contributions to science were co-opted for military purposes, whether or not he agreed with them.

The post-World War II era not only saw the United States celebrating its nuclear victory but also capitalized on the overwhelming influence of Albert Einstein's theories to bolster its image as a global leader in science and technology. Einstein's theories of special relativity and general relativity, while groundbreaking, became the cornerstone of modern physics. However, this widespread acceptance amplified by wartime propaganda caused serious issues within the scientific community. Many newer and potentially better ideas were dismissed outright, and criticism of Einstein's theories was often disregarded or outright rejected, causing significant stagnation in scientific progress.

Einstein's work on relativity, particularly the assertion that the speed of light is constant, was rooted in James Clerk Maxwell's equations which suggested light travels at a fixed speed in a vacuum. The U.S. government and media played an instrumental role in championing this view, framing it as an unassailable truth of nature. This idea became so ingrained in scientific culture that any challenge to it was often met with swift rejection. The theory of relativity, particularly Einstein's insistence on the fixed speed of light, led him to propose a series of supplementary concepts like time dilation, length contraction, and space-time curvature. According to these ideas, as objects approach the speed of light, they appear to contract in length and time slows down. These equations were designed to ensure the speed of light remained constant in all reference frames.

The acceptance of these theories, while they provided explanations for many phenomena, began to create a monolithic view of physics. Einstein's ideas were revered, but this reverence turned into a scientific dogma. The narrative of the fixed speed of light became so deeply embedded in mainstream physics that any alternative theories were quickly dismissed, even if they had promising potential to solve issues within existing frameworks. New ideas proposing alternative explanations for light speed or space-time mechanics were often ignored or labeled as nonsensical.

The refusal to entertain alternative hypotheses had a chilling effect on the progress of physics. In particular, several theorists who suggested more dynamic models of light speed, or alternatives to Einstein's view of space-time, were met with fierce resistance. This included challenges to Einstein's model of time dilation and length contraction, as well as the view that large masses can curve space-time, which led to the theory of the expanding universe. Some scientists questioned whether space-time was truly curved, suggesting that a more fundamental understanding of light's interaction with gravity could offer new insights. However, these ideas were often brushed aside by mainstream academia, which continued to uphold Einstein's theories as definitive and absolute.

The impact of this dismissal was particularly damaging to the scientific community. New, potentially more accurate models of the universe were effectively shut down because they did not fit within the framework established by Einstein. Concepts like the variable nature of light speed or alternative views on the shape of space-time could have opened doors to new advancements in quantum mechanics, cosmology, and gravitational physics, but instead, they faced systematic rejection. By the time we reach 2025, Einstein's theories, though undeniably revolutionary at the time, have been accepted without sufficient re examination. The propaganda driven elevation of his work created an atmosphere where even well reasoned critiques or more modern ideas are dismissed as heresy, causing a scientific bottleneck. The refusal to acknowledge alternative theories has stifled scientific progress, as new models that might more accurately describe the true nature of light and the fabric of space-time remain on the fringes

During the post-World War II era, not only did the United States use Albert Einstein's theories to fuel its scientific and military dominance, but the broader global acceptance of these ideas also posed challenges for regions outside the Western world. While scientific progress surged in the West, many parts of the East, particularly regions that were economically disadvantaged or politically isolated, lagged behind in accessing cutting-edge research and new theories. This discrepancy contributed to the spread of Western scientific dogma in parts of the east, where the acceptance of Einstein's theories became unquestioned and was often regarded as an ultimate truth.

The lack of access to modern scientific resources in the east, combined with limited exposure to debates within the scientific community, led to a situation where ideas from the West, especially those associated with Einstein, were blindly accepted. These regions, where education systems were often underdeveloped or heavily state-controlled, had limited opportunities for critical engagement with evolving scientific theories. As a result, Einstein's theories, including the fixed speed of light and space-time curvature, were adopted as truths without much skepticism. In these societies, any challenge to such established scientific concepts was not only discouraged but often ridiculed or ignored.

In some cases, the acceptance of Einstein's ideas became more about ideological conformity than scientific inquiry. The rise of Western-style scientific dogma became a part of the larger globalization process, where scientific ideas from the West were projected as superior and non-negotiable. This led to a situation where low levels of critical thinking and limited scientific engagement in the East resulted in the unquestioning acceptance of these theories, even when they were challenged in more scientifically advanced parts of the world.

So, while writing this paper on February 16, 2025. Yesterday, Sabine Hossenfelder regarding an email she received from a certain physicist about seven years ago. In this email, the U.S. physicist was defaming Sabine Hossenfelder for a paper she had written, accusing her of doing it for short-term fame. The physicist claimed that Sabine didn't care about the physicist's work or the money he was receiving from the government, which was supposedly saving children from poverty in the family, along with many other psychological manipulation tactics intended to make Sabine feel like prey about to fall into questioning her future decisions. However, Sabine Hossenfelder, the mighty female scientist who never worked for fame but for the truth of how the world works, didn't bend to the pathetic comments made by this U.S. physicist. She stood her ground. Even my own family member warned me about why I am questioning Albert Einstein's theory of the speed of light, like I am doing something horrible. If something like what happened to Sabine Hossenfelder happens on a regular basis, how can we move forward with self-doubt? Certainly, it will become very hard to make progress. I even had to download that video, knowing it might get removed in the future by YouTube.

It's disturbing to realize how much these tactics whether psychological manipulation or public shaming are used to suppress alternative ideas in science, especially if they challenge long standing theories. People like Sabine Hossenfelder, who stand up for their ideas and question mainstream thinking, face a tremendous amount of pressure. If this is the reality that people who challenge conventional ideas have to face, it becomes clear why so many are reluctant to speak out or explore alternative perspectives. The fear of being marginalized, ridiculed, or silenced can be overwhelming, even for someone as strong and dedicated as Sabine Hossenfelder. This culture of intimidation stifles innovation and intellectual curiosity, making it harder to move forward as a scientific community.

MATERIALS AND METHODS

Logical Thought process

Before even starting the experiment, we must have a logical train of thought; otherwise, any information given will automatically be considered invalid due to the Minkowski space-time model, which Einstein used in his equations. As a result, if we continue using the space and time model, we will always get the wrong impression. Therefore, the first thing we must do is change our thought process.

The first thing we must do is to perceive time not as a fundamental reality but as a construct created by humans to measure the flow of continuity. The next question we should ask is: when using an atomic clock for measurement, which one should we use? Following this train of logic, we must recognize that when measuring an atomic clock, we are actually measuring oscillation dilation at different altitudes, not time dilation, because time is directly correlated to the oscillations occurring within the atomic clock itself. Another important consideration is that the earliest measurement system was the sundial, which allowed us to observe the shadow of a stick and its changing position. Over time, this system evolved from simply tracking shadows to precisely measuring 24 hours, 60 minutes, and 60 seconds each year. Unlike the sundial, which varied with the seasons, modern timekeeping shifted from a shadow-based mechanical system to an energy-based mechanical system. The sundial marked the first "inflation" of time by assigning precise numerical values to continuity, while the second inflation occurred when the shadow-based system was replaced with highly precise energy-based systems, such as atomic clocks or quartz oscillation clocks. Another key realization is that we cannot perceive time without a clock; all we truly observe is the continuity of events around us. In case of any doubt, I must emphasize that oscillation dilation data at different altitudes already exists on the internet and has been well established for about 100 years.

Another alternative logic we must implement is that, when it comes to magnets, there is no such thing as attraction or repulsion. Instead, we should think of it as energy flow in a loop system and a non-loop system, using the escalator model, which I have already explained in the paper's literature review section. Another important consideration before continuing with the experiment is that both gravity and magnetism follow the inverse square law, which represents how the power of gravity and electromagnetism decreases with distance. The final important logic we must address is that it was Sir Isaac Newton who separated gravity and magnetism because, during his time, because there was no concept of electricity or anything measuring energy itself. As a result, it was quite literally not possible to understand how magnetism and gravity might be two sides of the same coin. As I have already explained in my paper, the magnetotail has a much longer magnetic distance than gravity, especially compared to how gravity overtakes magnetism on the side of the Sun. Once all of these logical considerations have been made, we can now proceed with the experiment.

Measure the temperature of the speed of light in every frequency and dampen them in every frequency

The first experiment will be to measure the frequency of light and its temperature, observing how an increase in frequency automatically causes an increase in temperature. To conduct this experiment, the first step is to observe a wide range of radiation spectra. For example, it should range from the infrared radio wave frequency to the visible spectrum and then to ultraviolet, and even gamma rays. Each of these ranges will be directed at a rough surface of an object capable of detecting light frequency and temperature.

In a controlled environment, we will gradually increase the light frequency from infrared to visible, and even to ultraviolet or gamma rays if possible, checking the temperature for each frequency. The device will be set to measure the temperature at various frequencies aimed toward the surface. By doing this, we will detect an important point: higher frequencies will automatically result in a higher energy state, which suggests that if a certain visible spectrum of light, which does not burn human skin, is not actually causing the burning effect, the cause could be the higher frequency of light. What we are measuring is a human error.

This error occurs because when we attempt to measure frequency without using a device but instead relying on human perception, the human eye is not capable of detecting certain frequencies, effectively masking the information. Essentially, what I mean is that, during the experiment, a human observer will also need to note when light becomes visible to the human eye and, at which human spectrum range and at what age, till the ultraviolet light enters the visible spectrum. This causes a masking effect, which humans are not able to detect but machines can. This explains why, when we are inside a well-lit room, we don't feel as much heat as we would when stepping directly into sunlight on a hot summer day. What is actually happening is the human eye error: the human eye can only detect the data visible to it and is incapable of detecting anything below or above that range.

While conducting this experiment, another aspect we will examine is gradually blocking different frequencies of light while measuring both the temperature and frequency. This will help us understand how the theoretical one-way speed of light might be affected. For example, we need to assume that when multiple frequencies are present in a certain area, there may be a possibility that, when multiple waves of the same frequency collide with each other, instead of canceling out, they might transition into a higher or lower energy state.

The reason I suggest this is because, if we think about a waterfall, water gathers from many areas in the hilly terrain. This can occur due to snowmelt, rainfall, or the gathering of moisture at the top layer of a stream, which eventually flows down the waterfall. In such cases, when smaller streams of water enter a larger body, one stream eventually pushes the other, increasing the overall flow at the end of the waterfall.

In this experiment, the analogy suggests that when frequencies of light are blocked, it might cause a change in the temperature of the surface they are directed toward. What we need to observe if blocking certain frequencies results in an increase or decrease in temperature, similar to how water flow increases when different streams combine in a waterfall.

The reason these two experiments need to be conducted differently is that one involves directly measuring every frequency by gradually increasing the frequency, while the other involves blocking each frequency little by little. The reason for this distinction is that in one experiment, we are measuring the temperature rise, whereas in the other, we are measuring the individual speed of each light frequency.

For example, if I were to ask about the theoretical speed of light at frequencies of 701 and 702, we would typically assume they are the same. However, what if the speed is not exactly 300,000 kilometers per second, but instead a combined frequency of the two speed which is about 300,000 kilometers per second, somewhere between 600,000 kilometers per second? Again, this is just a theoretical value. If blocking each frequency automatically lowers the temperature, the next question is: how much thickness or how many different types of materials would be needed to fully block the speed of light using them?

In the second experiment, where we block every frequency of light, we expect that when the entire range—infrared, visible, and ultraviolet—are combined and aimed at a certain object, we will determine when it is fully blocked. If it is blocked, it would mean that for every frequency blocked, the overall energy rate will decrease, and consequently, the temperature of the object being targeted will feel or detect less temperature. Similar to how high flow of fire can even cause to metal to melt, while low flow of fire only causing warming in the infrared spectrum first.

Overall, this is a theoretical perspective from me, using the waterfall analogy to explain how multiple sources of water come together in a single streamline, and when they combine, only then does the speed of the waterfall increase. In this case, if we talk about multiple frequencies of light, when they accumulate in a small space, each frequency might push the next frequency to move a little faster. I am unsure whether this will actually provide us with new information or not.

After these two experiments are completed, another experiment that needs to be conducted is using multiple light frequencies of the same type and observing at which point a certain object becomes illuminated, while the surrounding area remains invisible. If one frequency of light can push another frequency, there may be a possibility that, when light is directed at an object in the infrared spectrum, an accumulation of multiple frequencies could illuminate the object.

To do this, we would need to place a rough or any object that can easily be illuminated by light in a controlled environment, then direct multiple light frequencies at it. The goal is to observe at which point the object becomes illuminated. This idea stems from the same waterfall analogy—when multiple light frequencies accumulate, they could potentially increase the overall energy and cause the object to be illuminated.

Producing gravitational lensing effect in a control environment.

In order to conduct this experiment, the first thing we need is something similar to the G-pod that the military uses to train fighter pilots. Now, this has nothing to do with the pilots themselves, but rather, we should use it to see if any type of acceleration can help us detect the gravitational lensing effect.

To conduct this experiment, the first thing we need is a G-pod, similar to those used by the military to train fighter pilots. As for the material, we need something that does not produce its own electromagnetic field too much, as we will need to place a highly powerful magnet inside it. The reason for this is that when a gravitational lensing effect occurs, it happens because a galaxy in front of another galaxy causes the light from the distant galaxy behind it to bend or blur. This is where the magnet comes into play. As the Zeeman effect states, when light interacts with an electromagnetic field—whether strong or weak—it produces multiple spectral lines, causing one stream of light to split into multiple streams.

In order to detect this effect, we will need to add three holes into the G-pod without compromising its structural durability. One hole will be made at the top, another at the bottom, and a third at a 90° angle from the top and bottom holes. A certain frequency of laser light will be pointed through the top hole, aimed below where the other hole exists. Different types of sensors will be placed below to detect whether the light stream is bent or smeared. This effect will only occur if there is a strong electromagnetic field inside the pod, so we will need to place a powerful electromagnet inside.

Additionally, we need to make sure that no refraction occurs. To achieve this, we will try to create as much of a negative vacuum inside the pod as possible, similar to the vacuum of space outside Earth. By doing so, we will notice that the light, which would normally be visible from a human perspective, will be less visible because the low or negative vacuum will not have much floating material inside to reflect the light, as is common in dusty or foggy environments on Earth. This effect will cause the light's visibility to decrease which will be observed using the hole in the 90 degree angle from the top and bottom or in short the middle hole, using a normal visual camera to see how much the light is visible, but it will still be detectable by the sensors below.

This is similar to how astronauts cannot directly see the light but can detect the reflection of light from planets, moons, or asteroid fields. Once the electromagnetism are activated, they will cause the specific area where the light is projected to become slightly wider or even bend. This will confirm the Zeeman effect and suggest that what we refer to as "dark matter" might not actually be dark matter. Instead, it could be a highly magnetized field created by black holes, and when any galaxy lies behind a black hole, the light passing through it gets smeared due to the Zeeman effect, which in turn causes the gravitational lensing effect.

If the experiment shows that the gravitational lensing effect is caused by the magnetism and not dark matter, the next phase will involve lowering the amount of power applied to the magnet inside the pod and observing what happens if the pod itself is rotating at a very high velocity. The reason behind this is that we know every celestial object has a natural rotational curve around a larger body, such as the Sun or a black hole. The question arises: Does the gravitational lensing effect increase even with low magnetism when the pod is rotating? If it does then that might be what we call dark energy might just be the magnetic effects that are being caused by other galaxies clusters.

By testing this, we will be able to understand how rotational motion affects the gravitational lensing effect in conjunction with magnetic fields. This could provide valuable insight into the nature of dark matter and dark energy, which may not exist as we currently understand it. It could also help us reconsider the need to search for axion particles, which have never been detected in particle accelerators.

If this experiment confirms that the lensing effect is primarily influenced by rotational motion and magnetism, it would provide a compelling new framework for understanding the phenomena that we previously attributed to dark matter or dark energy and help in stopping the non nonsensical money wasting journey in finding the axion.

Artificial Intelligence

This will be the final part of the experiment, and my perspective is that, since we are quantifying, interpreting, or observing data from a human perspective, we are inevitably misinterpreting a significant amount of that data. The core issue lies in our limited ability to perceive the full spectrum of phenomena—specifically, light frequency. We, as humans, simply don't know how these frequencies behave in their entirety. As a result, it's not just difficult for me but for the scientific community as a whole to conclusively claim that using filters is the best approach. The challenge is that filters, of any kind, tend to obscure our view of what's really happening, leading to diminishing returns. Instead of enhancing our data, filters may inadvertently block or distort critical information. This causes a false assumption—that we're collecting more data—when, in fact, we might actually be deleting or obscuring more data during the conversion process.

This is where artificial intelligence becomes a crucial tool. While it's clear that AI has the potential to give us deeper insights into the phenomena we are studying, the real challenge is that I don't yet know how to harness AI effectively in this context. We are trying to detect invisible matter, specifically by studying light behavior in the ultraviolet and infrared spectra, but this is not a straightforward task. The AI system needs to be trained to identify patterns and anomalies within these invisible wavelengths, something that the human eye or traditional methods cannot do. However, developing an AI that can distinguish these subtle interactions requires an understanding that we simply don't possess right now. If AI can be harnessed correctly, it could offer a level of precision and insight far beyond what human perception or current technology can achieve. But to make this a reality, we need to overcome the fundamental limitations of both our observational methods and our understanding of how light behaves in these unseen spectra. AI could help bridge this gap, but only if we can develop the right algorithms and tools to allow it to detect what we, as humans, cannot perceive directly. This is the pivotal point where the future of these experiments lies. Without AI, we risk missing out on critical data or misinterpreting what we do find, leading us further away from understanding the true nature of these invisible phenomena.

RESULT AND DISCUSSION

Measure the temperature of the speed of light in every frequency

Since the experiment are not done yet, because I lack funding and since I am a school dropout, the maximum I can give in this paper is what the outcome will be, if the temperature does increase with every frequencies then it could mean that when we are measuring the speed of light in the radio device we are actually not measuring the speed of light in every frequencies, but instead what we should call it as the measuring the speed of light temperature fluctuation in every frequencies, because then it could mean that since the Maxwell equation does not talk about the thermodynamics, meaning increase in every frequency has a profound on temperature as well leading to the conclusion that saying in a teaching environment that the speed of light in every frequencies will only slow down a human logical thinking process.

Producing gravitational lensing effect in a control environment

As for this experiment since it is a completely new type of experimental topic, that maximum expectation of the outcome I can give in this paper is the zeeman effect, like how a magnetic field can cause the single spectral line to get converted into three like but into more spectral line in a strong magnetic field, similarly instead of looking for dark matter candidate like axion, we should try to understand what happens to a light in a strong magnetic field, and for making the experiment more realistic we should aim for as much as gravitational lensing effect that happens due to a very strong magnetic field caused by a black hole, the effect will become more easily understandable once I explain the Stern Gerlach experiment and Aharonov Bohm effect and the Arago spot which basically talks about how the electron can split and reconnect with distance. But that will become available in my future research paper and would be better if I can get funded monthly if possible.

CONCLUSION

This paper challenges the foundational assumptions of modern physics, proposing that the speed of light is not a universal constant but varies across frequencies and is influenced by gravity and electromagnetism. It argues that time is not the fourth dimension but a human-made construct, and phenomena like time dilation are better explained by oscillation dilation—changes in atomic oscillation rates under different gravitational or electromagnetic conditions. The paper also reinterprets gravitational lensing as an electromagnetic effect rather than a result of space-time curvature, suggesting that dark matter and dark energy may be misinterpretations of electromagnetic phenomena.

Since I am a school dropout without formal training in physics or access to funding, I had to rely on logical reasoning by reading many already existing data, analogies, and thought experiments to critique established theories. While the paper lacks mathematical rigor, it raises critical questions about the nature of light, gravity, and time, encouraging a reexamination of long-held beliefs. The proposed experiments such as measuring light speed across frequencies and simulating gravitational lensing in a controlled environment offer practical avenues to test these ideas. Additionally, the use of artificial intelligence to analyze invisible light spectra could uncover new insights into the behavior of light and electromagnetic fields.

The paper acknowledges its limitations, particularly the absence of mathematical formulations and experimental data. However, its strength lies in its boldness and willingness to question mainstream physics. By challenging the dogma surrounding Einstein's theories and exploring alternative explanations, I hope this paper will inspire others to further the research and open-minded inquiry. While the ideas presented may face skepticism, they contribute to a broader dialogue about the nature of the universe and the need for innovative approaches in physics. Ultimately, this work serves as a call to action for scientists to revisit foundational theories and explore new perspectives, even if they deviate from the established norms.

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