Jac C. van den Broek

UP TO THE NUCLEI IN THE PERIODIC TABLE OF THE ELEMENTS THE DUTCH PARADIGM

A New Thinking for Modeling Particle Physics



The Dutch Paradigm

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1. INTRODUCTION

This book is the fourth volume in the series on The Dutch Paradigm.



So far, it has been explained that The Dutch Paradigm claims that the Standard Model of Elementary Particles can be reduced to only two elementary particles: the photon and the neutrino. Both particles manifest themselves in space and time with their free electric quants. The physical manifestations we humans can observe in the physical result from interferences of these quants of photons and neutrinos only.

The findings up to the model for the electron, neutron and proton are summarized in paragraph 15 of this book.

For the analysis of available data regarding our human observations, it was imperative to make a split between the monistic physical world we observe and the mental capability of thinking by the human observer. He must become aware that the objects are tangible illusions.

The human being lives in a world that allows him to think about what he observes in this monistic world. He participates in this world with his physical body, but his thinking brings him into a parallel world; he is aware of time and space. He can consciously think about what happens with these tangible illusions in time and place.

For the observer, it is almost impossible to split these two worlds. Both time and space are intangible but necessary for him to enable the grasping and thinking of his sensory representation of the monistic world. This will be discussed in this book.

He perceives their sensory representation as objects. He encounters these objects and is able to derive causal conclusions about the coherence of what he observes. It tells him a story in time and space, and he wants to understand where and who he is.

Therefore, we need to discuss and understand how our sensory systems work and how the monistic world is able to represent objects in monistic tangible illusions.

We also want to understand how the monistic, physical world may evolve from a chaotic start into self-imposed phases towards higher levels of perfection.

Because that is what we observe, from the very start up to living creatures.

When assessing the photon and neutrino, we still can identify intricacies that could be the start for further perfection of the objects into ultimately living creatures. Creatures like we represent, but also the animals and flowers around us.

The Dutch Paradigm is, in essence, focused on models to understand particle physics. But in this book, we made a humble step by thinking about dual functionality in the proton, especially the proton bond and the more complex nuclei listed in the Periodic Table of the Elements.



It was an unexpected revelation that it was possible to configure the complex nuclei in models that allow a better understanding of the world we are living in. This will be explained as a logical consequence of the modeling per The Dutch Paradigm.

The reader is invited to join these findings. You will be amazed that this configuration was possible based on the manifestations of only gamma photons and gamma neutrinos.

2. PHYSICAL MANIFESTATIONS IN DUAL PERSPECTIVE

The Dutch Paradigm indicates that humans use sensory perceptions to form in their mind images of objects in their field of view by seeing, hearing, and touching. The objects themselves are 'constructed' from tangible illusions of the manifestations of the free electric quants that move at the speed of light.

As humans, we can experience the phenomena of the objects in these images. Phenomena that we classify as representing dead and living 'nature.'

Why do we make that distinction between dead and alive?

This question arises from experiencing our state of being.

We experience our state of being within the boundaries of our physical body. We keep ourselves physically alive by absorbing and processing nutrients in our metabolic system. We eat and breathe and select the suitable nutrients based on availability in our earthly environment. We know that some nutrients must come from organisms that have previously shown life. We have observed these organisms alive and selected them according to their supposed 'nutritional value.'

But what have we observed about those objects - organisms - that we assume that they are or have been alive?

Wikipedia about life:

Life is a complex of properties and functions of organized beings, which maintain their existence through processes such as internal regulation, metabolism, and reproduction. Well-known forms of life include plants, animals, fungi, algae, and bacteria. The science that deals with the study of living beings and life phenomena is called biology.

In the teratment of the released free electric quants, we are not able to interpret properties as indicated above relative to the concept of life as a property of the physical manifestation of the entities. This monistic world of free electric quants, released by the Big Bang, has developed itself deterministically into the atomic state. The quants of the entities manifest themselves therein after each Planck time with a displacement of 1 Planck length. So far, the development from The Dutch Paradigm can be explained logically in our thinking. This physical world can develop further into planets, stars, molecules, and crystals.

Ultimately, our physical body was also created in space. The basis from which this physical body is built is still the monistic world of the manifestations of the free electrical quants of entities. Our physical body also consists of the monistic constructs of electrons, protons, and neutrons.

The question arises: are physical bodies also 'constructed' from tangible illusions?

What then lives in the 'organized beings' that, within the physical boundaries of a body, ensure that these organized beings want and can maintain their existence in their constructs?

Besides, the life of an organized being is finite, and there follows death and deterioration into dead matter. A deadly substance that still consists of electrons, protons, and neutrons.

Much biological research has been done into this, and theories have been drawn on how the first living matter arose from "dead" matter. Also, we see that the body dies and yet continues to exist on a monistic level, but as "dead" matter. Only it can no longer maintain itself as a living being.

A tangible illusion that decays into the material from which it is made up

The first origin of life is referred to as abiogenesis.

Wikipedia about abiogenesis:

In biology, abiogenesis, or the origin of life, is the natural process by which life has arisen from non-living matter, such as simple organic compounds. The prevailing scientific hypothesis is that the transition from non-living to living entities on Earth was not a single event but a process of increasing complexity involving the formation of a habitable planet, the prebiotic synthesis of organic molecules, molecular selfreplication, self-assembly, autocatalysis, and the emergence of cell membranes. Many proposals have been made for different stages of the process.

No matter how far we have advanced in scientific thinking, we do not yet know how to bring dead weight to life and how to save living matter from dying.

The description of death is then:

Wikipedia about death:

Death is the irreversible cessation of all biological functions that sustain an organism. For organisms with a brain, death can also be defined as the irreversible cessation of functioning of the whole brain, including the brainstem, and brain death is sometimes used as a legal definition of death. The remains of a former organism typically begin to decompose shortly after death. Death is an inevitable process that eventually occurs in all organisms. Some organisms, such as Turritopsis dohrnii, are biologically immortal. However, they can still die from other means than aging.

As a science, physics is limited to the study of 'dead' matter. The difference between dead and living nature is determined according to the degree of scientific predictability of the changes in the observed images. The Dutch Paradigm indicates that the free quants of gamma photons and gamma neutrinos travel at the speed of light, also in the constructs electron, neutron, and proton, irrespective of matters of life and death. That notion of quantum physics arose in physics at the beginning of the last century.

Physics perceives the images and changes of objects moving at low speeds relative to the speed of light. Also, in these observation conditions, we speak of dead matter if the movements are - in principle - predictable by laws of nature and of 'non-dead' matter if we cannot explain what we observe. Living things do not behave entirely predictably in the physical sense. How this is possible is outside the scope of regular physics.

It is still mysterious how 'dead' matter in our physical body can be brought into living action by man's will.

The monistic active constructs must facilitate this.

In abiogenesis, the origin of life is believed to arise from a natural process in which life arose from non-living matter, such as simple organic compounds.

Wikipedia:

An organic compound or organic substance is a chemical compound that contains at least one carbon atom, and usually several carbon atoms, which are linked together via a covalent bond to form a carbon chain. In addition to carbon, organic compounds almost always contain hydrogen atoms. The name organic compounds dates from when this group of compounds could only be found in living nature, produced by organisms.

The assumption can then be extended by a scientific intuition that control of unpredictable changes can occur at a low monistic level of the constructs composed of neutrons, protons, and electrons.

But how?

This will be discussed exploratively in the following chapters of this fourth book in the series of The Dutch Paradigm.

3. CHAOS AND SETTLEMENT

We experience with our senses that much of what we observe in the physical world is related to concepts such as life and death and notions such as chaos and equalization. These concepts encompass an emotional value, a connotation of intention and a purpose in 'time.' He himself, as a dual human being, and after compounding many sensory impressions of the physical world, adds this connotation into a mental understanding of the world he is living in. Dual here means that man adds meaning to what he observes as a living and thinking being. Man experiences herewith 'time' as essential, and he attaches value to finding explanations of the why of what happens around him and to himself.

The Dutch Paradigm distinguishes between the observed monistic physical manifestations and what meaning we, as dual human beings, add to them in our thinking, individually and as a group. The term "adding meaning to that" is subjective.

The monistic physical manifestations are defined in models of The Dutch Paradigm up to atomic constructions. Each jump of a free electric quant is compulsory of 1 Planck length at each 1 Planck time. A display of the reoccurring quants is comparable to the metaphor, for which humans create a film by exposure to a series of stationary images.

Humans can incorporate the multitude of experiences about the many NOW presentations into their thinking. In the metaphor, we see and experience the film. We determine in our thinking that an image's content shows itself to us over time. Whether we can consciously or unconsciously arrive at a clear interpretation of what we see is separate from the observation.

The Dutch Paradigm has described the formation of the electron, neutron, and proton in detail. It results from a thinking exercise following the method of reverse engineering.

If we try to find out in this way, through reverse engineering, the history of creating objects we observe in everyday life, we quickly get stuck. It is not (or not yet) conceivable that the monistic considerations of settlement and chaos can achieve this. Yet, these objects are also made up of electrons, protons, and neutrons, and the gamma photons and gamma neutrinos move within them at the speed of light. With some philosophical tricks, we can say that the Big Bang apparently physically laid the foundation for us to become aware of all this as living beings. It is a proof by contradiction.

Wikipedia:

A proof of the absurdity of a statement goes like this: Assume that the statement is FALSE. Infer something from this that you are certain is FALSE. The statement cannot then be false and is therefore TRUE.

We become aware of ourselves through sensory observations that can reach our mind via our physical body. A physical body that in itself is monistically only observable as a tangible illusion.

We still understand very little about how that physical body forms and why and for what purpose we experience such a thinking consciousness. Yet, if immediately after the Big Bang, a new ordering of entities - photons and neutrinos - arises in a causally explicable manner, then it is not up to us to intellectually reject the clear ontological indications as not probable simply because we cannot identify the meaning or do not want to endorse such acts.

In The Dutch Paradigm, I accept that the entities involved with their free electrical quants came into compelling physical mutual interference shortly after the Big Bang. Chaos ensued. But this chaos was not permanent because the constructs electron and the dodecahedron emerged from the chaos. These arrangements into such constructs can be explained logically, but with the caveat that specific preconditions within space and time had to be met. Within The Dutch Paradigm, it has also been determined that these conditions were met, backed by available data and calculations.

> Whether there is a basis for meaning that humans can perceive the physical sensory world remains unanswered.

The Dutch Paradigm states that man has the quality to compound observations and, from the very beginning of his thinking, could demonstrate causal connections in the succession of phenomena. You can walk on land, but in water, you have to swim. It is comparable to how, traditionally, laws were discovered through thought based on empiricism. For a long time, classical physics thought that the formulated laws represented compelling laws of nature. This position has been outdated since the early 1900s with the advent of quantum physics. At most, we can now say that we can derive systematics from how the monistic world of phenomena presents itself to us. Every Planck time reveals itself as the eternal NOW of a monistic world in change. Traditionally, we once again look for causal connections in that monistic world across time and place. From the Big Bang to who we are today.

The Dutch Paradigm has made a suitable connection between the subatomic world and classical physics.

This connection has shown that the monistic phenomena inherently show a build-up to higher forms of composition up to and including the atom.

We can conclude that the inherent and systematic structure in the initial phase of the physical universe gave rise to the composition of complex constructs: electrons, dodecahedrons, and, subsequently, the formation of neutrons, protons, complex nuclei, and atomic shapes.

> We can reason that from releasing the free electric quants into physical space, no additional exogenous influences were necessary to evolve to the formation of atoms ultimately.

To what extent the availability of these building blocks has inherently and systematically given rise to the emergence of natural manifestations up to plants, animals, and humans generally falls outside the scope of classical physics and also of quantum physics.

This rule is a self-imposed restriction with no reason. Objects can exhibit living phenomena with a similar structure of electrons, neutrons, and protons.

We accept that as living human beings, we indeed experience sensory that much of what appears in the physical world is related to concepts such as living and dead and verbs such as chaos and equalization. He also experiences physical rhythmic changes in *himself*, such as breathing, heart rate, and blood circulation. These phenomena are seen from a dual view as factual and undeniable.

We assess with the same logic that, monistically, we encounter only tangible illusions in the NOW. Observations that are (almost) static per single NOW. An electric quant shows itself at rest. It seems unnatural again, but for the quant in the NOW, the natural resting speed is the speed of light. In the metaphor, if we were to take a photo with an exposure time of 1 Planck time, there would be little visible that resembled a human body. We see this connection and mutual influences as soon as humans can work with "a long shutter speed" per pictural view.

With every Planck time, a single but eternally changing NOW shows itself. A NOW that shows itself to us 'as is' with every Planck time.

Nevertheless, there are indications from which a direction of thinking about the influence of living phenomena can be developed. We know that, as humans, we can consciously and actively alter the world of tangible illusions. Changes that are not a priori inherently planned.

Surprisingly, man has recognized repetitiveness while arranging images and formulated 'laws of nature' from his compounded sensory perception. Many of the changes appear predictable in a classical sense of logical coherence. This makes sense because philosophers have taught us we can investigate cause and effect. Because the classical laws of nature speak about logical coherence in the compounding and future settlement of events, we know from a dual view that we can also make changes in the eternally changing NOW. Our direct human actions based on thinking, feeling, and wanting are proof of this.

In the context of the considerations of The Dutch Paradigm, it was unexpected that the composition of gamma photons and gamma neutrinos into electrons and dodecahedra in the physical domain turned out to be logically explainable. It was expected that after the Big Bang, chaos would continue to prevail. However, the manifestations of the entities involved are spatially and long-term connected after interferences. In combination with the free electrical quants, properties arose in these constructs that have aroused great surprise and amazement from their very inception. A world of possible interferences developed that already had the potential to develop into what we now perceive with our senses.

Max Planck found, based on research, that the manifestations of the 'elementary particles' are quantized and do not show a continuous presence. What this quant has its origins in is postulated in The Dutch Paradigm as an assumption: a one-off and permanent interruption of the magnetic compensation in the electromagnetic system of each entity involved.

This assumption was subsequently validated as simple and logical causality by connecting with many other misunderstood observations up to an arithmetic elaboration.

Due to the logic that connects the coherence of the results, many open issues in small particle physics can be modeled appropriately from thinking. The origin of the mass phenomena of gravity and mass inertia has been uncovered. The origin of the proton as a double dodecahedron and β -decay from the neutron has been clarified and calculated, the question of Heisenberg's uncertainty has been resolved, and the existence and origin of black matter have been clarified.

The atoms we find in the universe were created in phases of autonomous development. Stages in which chaos emerged were followed by the formation of constructs in the chaos with an increasing degree of order. The diagram below shows how the construction of nuclei proceeded in repeated alternations of chaos and order:





The decisive factor is that dodecahedrons emerged each time a group of electrons at a similar speed and suitable orientation mutually interfered with their free electric quants. As a construct, a dodecahedron slows down in speed to (almost) zero relative to the source of the Big Bang. The necessary spatial expansion of the construct dodecahedron causes another complementary logical step in the iteration and succession from chaos to perfection. The constructs' models have not been established based on directly observable phenomena but postulated as logical models based on thinking about the universe's origin.

The nuclei evolve to the planetary formation stage in a chaotic phase and adjust subsequently to a natural fit in stars and planets.

The eventual step towards atoms shows equal logic and appears to be the finalization of the process of the ultimate atomic formation. Environmental conditions of densification at low spatial temperatures result in forming plasma, gas, liquid, or solid 'matter' clusters.

If we now look at the situation up to the formation of the cores - as described above - it gives the impression of a process sequence by design. It is practically unthinkable that man acting in the physical world could accomplish such a thing. It requires effort and imagination to understand that the events described indeed can be recognized based on what is recorded in The Dutch Paradigm.

From the origin and development of the physical universe, it is unexpected that man can live in a physical environment where he can manipulate the atoms towards speed and densification. Gas, liquid, and solid are forms of compression of 'materials' where we can create new constructions under earthly conditions using energy and shaping technology. Constructions that do not occur in nature but still can be made. We also notice that these constructions eventually decay and return to their 'natural' state by chaotic and equalizing processes.

The question then arises whether man's current playing field is permanently limited to work with dead matter or whether increasing control can gradually arise in responding in anticipation to the effects of chaos and adjustment.

This also includes thinking about the origin of the phenomenon of life.

The concept of life is not clearly defined. To date, there is no general definition that everyone is satisfied with, but scientists do agree that there are seven life characteristics:

Wikipedia about life:

Breathing, feeding, excreting, moving, growing, sensing and reproducing.

It is then apparent to search for the phenomenon of life from a yet undiscovered monistic property.

As humans, we exhibit the symptoms of life. Yes, but we also know the state of dying, of physically falling into chaos and settling with the phenomena in the physical world surrounding us.

This will also be touched upon at a glance further in this book. There are clues to the workings of the proton. This will be discussed later in a separate chapter.

4. ABOUT SPACE AND TIME

Most people have a concept of space and time within their own belief system - which may differ from one another. Our understanding of the nature of space and time is vague and cannot easily be described in conceptual terms. Nonetheless, when we address each other, there is no misunderstanding about what these words entail: space and time. We are, in fact, only mutually objectified in the experience of space and time.

However, it appears challenging to arrive at a conceptual description despite this consensus. We agree on how to measure space and time, saying that "measuring is also knowing." Still, we must conclude that derived methodological agreements are necessary to carry out that measurement.

Physically, we cannot perceive (empty) space or time at all.

After all, both concepts cannot be experienced in isolation based on directly objectifiable sensory observations. They must be derived from logical considerations to describe the sensorially observable changes in the position and motion of objects in space. Objects that we traditionally recognize as images in space. From classical physics, man has unconsciously assumed that these objects are fundamentally composed of more or less 'solid matter.' It is a challenge to become objectively aware that upon closer examination, these images are tangible illusions; there is no such thing as solid matter. We observe the tangible illusions when free electric quants travel at extremely high speeds in a circular orbit. These trajectories are spatially extended and mark the presence of the entities involved. Entities that have no spatial extension in themselves and can only be traced by their free electrical quants.

Sensory observations enable us as physical humans to form an image in our thinking of the world in which we 'live.' The images suggest being present in space, and we experience the changes in place and form in this towards a sense of time.

From what we experience, the urgent question of meaning arises from why and what we observe in this world.

After all, if only the formation of images in our minds fulfills the purpose of our "life," then we could also spend our "time" sleeping and dreaming. We do not experience our thinking while awake as dreaming and our physicality as a tangible illusion. Historically, it is easy to understand that man uses his egocentric perceptions to form an understanding of his environment and the world in which he lives. Everyone is capable of this and can exchange the results of his thinking about perception with his fellow human beings. Humanly speaking, there is a commonality in naming the observation, and it becomes quasi-objectified. Philosophy is the science par excellence that tries to bring wisdom into context through logical reasoning. However, egocentric quasi-objectivity arises if the sensory perception of space and time is missing in a physical sense but is added by the coherence from thinking to complete the reasoning logically.

We think in the waking state that space and time exist. We all believe that something is as it is experienced, but we do not have a solid source of objective sensorial perception available for this.

The conclusion, therefore, arises that space and time arise conceptually through thinking and have no physical basis from the sensory perception of the NOW. Again, this isn't easy to accept because we believe we experience a logical coherence of the images in time and space. Thinking about this connection does develop, but its value as a reflection of reality depends on a set of assumptions present and accepted in the culture.

There are plenty of examples in which we as humanity had to adjust our thinking assumptions with great difficulty, such as the idea of a flat Earth, the Earth as the center of the universe, and the like.

We have now entered a period in which we have become scientifically perplexed about what we, in fact, observe in physical space. On the most minor scale, we lose track when we try to understand the logic in the world of quantum physics. On a large, stellar scale, we are continually surprised by what space telescopes offer us regarding imaging.

The Dutch Paradigm has recorded in logical models what the monistic interferences of the free electric quants have made visible. We can further pursue developments regarding the possible physical observations of what this means regarding space and time.

I must then accept upfront that the monistic phenomena are objectified with a set of instruments that we, as dual humans, have developed to make precisely this mutually possible. This does not pose numerically or mathematically insurmountable problems, but it requires much of the scientist's imagination to understand the coherence in the monistic phenomena.

From a subatomic perspective, we wonder how the proton is composed. The proton is not an elementary particle; it is accepted to be a construct. It is stable and also almost indestructible. Until now, we cannot examine its component parts in isolation.

The enormous effort that has been made possible with the Large Hadron Collider to collide protons at (almost) the speed of light is aimed at verifying the current model of the proton:



CERN

The model that The Dutch Paradigm proposes here can be derived on logical grounds from the behavior of the free electric quants of photons and neutrinos.



The Dutch Paradigm

Within the framework of The Dutch Paradigm, I have indicated that, ultimately, the observable interference behavior of the free electrical quants of entities can be formed into images through thinking. These free electric quants emerged from a brief interruption in the potential electromagnetic system of each entity involved in the Big Bang.

Such a line of thinking supplemented with a metric verification is not available within the CERN model of the proton. Both the spatial representation and the internal dynamics are still a mystery for the CERN model.

We still lack a common understanding of the build-up of the proton.

The Large Hadron Collider produces performances as shown below:



There is enormous thinking power behind the work being carried out in Geneva, but it is also clear that a connection to a model that can be transferred in thinking will still have to go a long way.

The description of the modeling of The Dutch Paradigm is modest in complexity.

Before the Big Bang, the electromagnetic system of each entity was instantaneous, that is, the equalization of the system components occurred without time delay. The entities were mutually inert and could not influence each other. Presence in time and space were not exogenously detectable qualities of an entity.

Due to the Big Bang, the entities were released into space due to mutual Coulomb repulsion. The entities made themselves known physically and individually through their free electrical quants and acquired the possibility of mutual interference through the spatial encounter of each other's magnetic components. In the resulting physical space - in which humans can ultimately experience the images from their thinking - qualities of each entity were expressed exogenously, resulting in changes in the location and behavior of their free electric quants due to mutual interferences. The construct electron arose due to the interference of a free electric quant of a gamma photon with the magnetic component of a gamma neutrino. From the start, these constructs also showed properties related to location and changes in physical space.

The mutual changes in position arise when the free electric quants move over 1 Planck length at each new Planck time. This movement is free because the magnetic compensation and the displacement of the entity associated are structurally delayed. This action will be executed but with a 1 Planck time delay. The repositioning of 1 Planck length is absolute, which means that for an entity that is part of a construct that, in the physical context, has its proper speed, the actual displacement of the free electric quants is the result of a combined motion in displacement. This combination of movements is constructively compelling, and the interferences are force-locked. This applies to a single construct as well as to a system of multiple intertwined constructs. Electrons, dodecahedrons, and compound dodecahedrons such as neutrons and protons are such constructs. In this way, atoms' atomic shape and composition into molecules are also created. The mutual force-closed bonds differ in the strength of the bond, being the resistance to breaking the various interferences within the construct.

The verbal description of the phenomena originates in man's dual capacity to think about the logical coherence of the observable phenomena. The Dutch Paradigm uses mathematics as a tool for modeling the constructs. The properties are metrically validated.

What we as humans believe we perceive with our senses is based on the complex composite constructs that we build up as objects in our thinking. How we perceive monistically aligns with what has just been described. Photons at a frequency of 10^{14} Hz - the field of vision - interfere with electrons in the shells of atoms that are part of the cones and rods on the retina of each of our two eyes. The observations are composed in the mind at a rate of approximately 20-60 frames-per-second into images. In thinking, this forms an image of an object. In our thinking, we perceive the image in an environment with the characteristics of a 3D impression. That impression is based on the tangible illusions of the objects.

> The idea of time is therefore stretched for the human being as an observer through his thinking by processing the extremely high-frequency impressions of NOW experiences into an image, in which the positions of all free electrical quants in the viewing area are stuck together over approximately 10^{43} iterations per frame of sensory perception. These compound images can change in human perception, autonomously from the observed object, but also in a change in the position we occupy spatially relative to the object of perception.

> Our thinking creates an image of space in which objects move in time.

But what is reality in each discrete NOW moment?

Well, it certainly seems that since the Big Bang, no new entities with a free electric quant have emerged. Only an enormous number of NOW iterations have taken place, which is still happening. Monistically, it can then be said of each released entity that it has taken a uniquely traceable position at every NOW moment. Traceable to the Big Bang.

This is the case per iteration of 1 Planck time of 5.10^{-44} sec, and already over 13 billion years. Compare this with the number of iterations that we experience in an earthly life of approximately 80 years as a repeated NOW experience: $5.10^{44}.60.60.24.365.80$ = $12.5.10^{53}$.

These numbers are enormous, yet monistically, the processing of each iteration by the entity, naked or incorporated into a construct, is feasible and constructible. After all, every entity works incrementally. After each iteration, the electromagnetic system processes the entity's imperative position change relative to the previous iteration of the 1 Planck step. That processing is instantaneous, and whatever happens, it is no more than resulting from a tiny part of each entity's originally potentially active electromagnetic system. We know this because the full physical potential of the electric system of the entity exposes itself to the physical world due to its asymmetrical positioning in the electron.

It does not matter whether the iteration has to be performed once or 10^{60} times. The electromagnetic system of an entity is not subject to 'wear.' It processes the physical spatial adjustments within the endogenous system incrementally and does so in a perfect way with each successive iteration. The processing proceeds according to a fixed relationship of dependencies, recognized by us as the electromagnetic system.

The properties per entity and entity type do not change. The only thing that changes is the degree of spatial freedom of movement of the free electric quantity relative to the speed of light. In absolute terms, this movement is and will continue to be 1 Planck length. However, due to persistent interference in a construct, this movement can become divided by the impact of a free magnetic quant created as a necessary restraint in the direction of movement to avoid superseding the speed of light. We call that in paradigm the force of gravity. Either way, we can track the fortunes of any entity by processing the discrete values of the free electric quant into the entity's spatial position and vector of velocity. It is a mathematically describable system with known actors. It is, therefore, always a matter of fine-tuning the vector of the entity and the other entities connected by "force" in a construct.

Wikipedia on strength:

A force is a physical quantity that can cause an object to change shape or speed. This then concerns the deformation or acceleration of the object on which the force acts. Physical work is done when an object moves due to a force (composite or otherwise). In materials science, forces are named after their effect on an object, such as tensile force, compressive force, shear force. In physics, forces are often called according to their origin, especially gravity and the Lorenz force.

The position of each entity relative to the source is known in velocity vectorially. The iterative movement per each Planck period becomes processed concerning the constraints in spatial freedom of movement for each participating entity in a construct. There are only two types of basic constructs, the electron, and the dodecahedron, in composition as neutron or proton. The alignment with the source of the Big Bang is only in speed and direction, not location. In other words, time for the entities is incremental and not absolute. The increments are not summed up in a count. The entities do not know how long they have been 'on the road.'

This means that the spatial position in time is indifferent to the entity. That position is adjusted alone and per iteration without referring in any way to the path followed. The entity does not know where it is. No endogenous property within the entity can capture the spatial adjustment of the entity's position. Only the vectorial bond in speed and direction to the source is known and serves as a basis for synchronizing with other constructs via an energy exchange.

I can go into more detail about this, but I think this will suffice as a description so far. There is nothing virtual, and everything is still ontologically a closed whole that can develop in this way into what we can ultimately perceive with our senses.

The calculation per iteration is straightforward, but the number of iterations is enormous.

What we ultimately perceive visually is derived at a short distance from photons in the visual area that reflect the contours of an object. For the solid objects, the interferences occurred with the electrons in the outer shell of atoms at the boundary between the object and the surrounding transparent space. With the known limitations, with good lighting, i.e., the possibility of reflection of photons in the viewing area by the object, we can achieve imaging of the object with the frame rates we implicitly have sensorial available. Over large distances, on a stellar scale, the observations are limited to the emitted photons in that field of view. A problem arises when those photons undergo many iterations before interfering with our eye. We then look at the 'past' and do not know the current state and location of what showed its presence at the time through spatially released photons. To arrive at a correct picture, a lot of scientific thinking has been done, and we now know the general theory of relativity, with all its unique features of spacetime. We then talk about time as a variable, but from a monistic perspective, this is, as I hope has been clearly stated, irrelevant. Because we humans also have a clear image of what we think we perceive with our senses, great confusion arises here to unravel what we should process in our thinking as an image from the past.

> This summation of the total number of iterations is monistically irrelevant, and time and space as a summation are, therefore, a human concept that arises from our thinking about observations.

'Time' is not a physical parameter or concept. It is a human method of thinking about apparent patterns of changes in the perceived images.

There is also clearly no monistic reason to attribute properties and qualities to 'space,' especially empty space, to explain phenomena in quantum physics.

Both time and space have now been explained within the framework of The Dutch Paradigm. Time does not exist for entities as the sum of the many iterations. Monistically, it is an increment with a view of no more than 1 Planck time.

Man creates time and space by thinking about observations.

5. EXPANDINGG SPACE AND THE INERT BEHAVIOR OF THE UNIVERSE

In the space around us, we see objects. The Dutch Paradigm indicates that objects comprise a perceptible structure of monistically tangible illusions. This accounts for the objects we encounter in our immediate vicinity, as well as for planets and stars.

Being tangible is then related to the ability to touch an object directly as a human being or via an instrument, thereby experiencing resistance to movement. This applies to individual humans and also when we land a space vehicle on the moon's surface.

Particle physics refers to the behavior of tangibility as the "Pauli exclusion principle" but does not comprehend the first principle of the phenomenon. The tangibility gives the human being the impression of physical separation from the object. He experiences this as a characteristic property of a (solid) object. We also traditionally assume that a physical object is an observable cluster of matter. Matter that shows the manifestations of what we link to the phenomenon of 'mass.'

We also assign these properties to objects we can only perceive visually because of the distance. This visual perception is - except for the visible planets – based on emitted photons from stars.

The Dutch Paradigm has also indicated that the idea of time arises when every free electric quant in 1 Planck time at the monistic level makes an incremental step of 1 Planck length. The dual-thinking human being observes a succession of a - no longer existing – 'previous' state of the object in place and time.

The electromagnetic system of an entity endures only a minor impact through each repositioning of the free electric quant. The significant impact is for the observer, who can conclude about the entity's behavior, the gamma-photon and gamma-neutrino, in time and place.

From the Big Bang onwards, the entity has become physically perceptible to our senses with its free electric quant. It happens and is experienced ontologically as a physical reality. Our thinking works with what we call time and place to understand logical follow-up of the past and present NOW moments. It allows us to assign the idea of an objectifiable truth to this logical succession.

Nevertheless, only a single NOW moment is physically available to the observer.

The designation ontological refers to the philosophical base of a professional science knowledge theory.

Wikipedia on ontology:

The ontology of a professional science

Within a scientific field, an ontology underpins the professional theoretical framework from which reality is investigated. Within a professional scientific framework, an ontology makes a meaningful measurement of that reality possible. New measurements can lead to adjustment or even a thorough revision of the theory, which in turn leads to new measurements. Crises in science in which neither theory nor measurement provided an unambiguous answer forced an entirely new ontology (theoretical framework) within a given discipline. In the history of physics, this was the case, for example, with Max Planck's revolutionary theory of quantum mechanics.

Changes in time and place of an entity can become physically perceptible to humans if there is exogenous interference possible in the electromagnetic system of entities in an object releasing photons at a frequency of 10^{14} Hz.

We can, therefore, immediately note that for sensory visibility, photons must be available in space that have already gone through many interferences. The gamma-photons emerged in physical space at a frequency of 10²³ Hz. Therefore, almost all of the energy of a gamma-photon must first have been transferred to constructs to reduce the frequency to the bandwidth of visible light, some 10¹⁴ Hz. This transfer of energy by photons is possible by action of impulse.

The acceleration by impulse is possible with all constructs, including multiple composite objects like non-atomic and atomic protons and neutrons. These encounters with the transfer of energy by impulse were chaotic by nature. The constructs under the impact of the impulses accelerated in their movement. The gamma-photon lost their energy to the
constructs. The constructs accelerated and dispersed in space relative to the source of the Big Bang and each other.

Human observers notice the impact of acceleration only once perception becomes possible. After all, the eye can only perceive optically sharp images of objects based on interference with photons in the frequency range of 10^{14} Hz.

The photons in the visible bandwidth can still transfer some impulse energy, as proposed by NASA for the interplanetary propulsion of satellites using sails.



The enforced acceleration of all objects has a similar effect as the assumed accelerated expansion of the physical universe.

Hubble was the first to show that the universe seems to expand. This observation relates to light phenomena observed in the visible release of photons by galaxies. All galaxies seem to move away from us and endure further acceleration through time. This phenomenon is not understood and is assumed to be the effect of an unknown source: 'dark energy.'

After revealing the origin of 'dark matter,' we now have an indication based on The Dutch Paradigm for 'dark energy' as well. It is most probably the effect of the depletion of energy of gamma-photons up to the bandwidth of visible light, a reduction in frequency from 10^{23} Hz to 10^{14}

Hz. This depletion of the gamma-photons is a phenomenon that emerged from the Big Bang onwards. It eventually also makes the stars 'visible' as well.

The (empty) space of the universe does not play a distinctive role in this phenomenon of drifting away of galaxies. The current paradigm assumes that the universe is expanding and suggests various possible properties of that universe that could cause it. This needs readdressing to the idea that the expansion is the direct result of impulse action by known actors, being gamma-photons.

The accelerated expansion of the universe is, in fact, a monistic process of transferring the energy of gamma-photons to objects.

6. FOLLOW-UP TO EXPERIENCE TIME AND SPACE THROUGH IMAGES

The relocation of the free electrical quant of an entity with each new Planck time is governed by what we recognize in a mix of causal relations:

- 1. Endogenous: the free electric quant belongs to the electromagnetic system of the proprietary entity
- 2. Exogenous: due to interference with spatially present electromagnetic systems of other entities

In the short period after the Big Bang, electrons were created by mutual electromagnetic interference, followed by the geometric arrangement into dodecahedrons.

According to The Dutch Paradigm, this ordering is logically explainable and even compelling due to the environmental conditions where the free electric quants found themselves in that first period.

The electron and dodecahedron model can hitherto not be made visible by instruments. The same applies to the composition of the dodecahedrons into the neutron and the proton. The models are the product of human imagination in thinking.

The images we perceive sensorially show a colossal multitude of static and dynamic objects. We know that all these objects are ultimately composed of atoms. Each atom has a nucleus consisting of protons and neutrons in a complex structure, with electrons in orbits around the nucleus.

Intensive research is executed to isolate the particles composing atoms. Particles that can't decay any further and can be nominated as the ultimate elementary particles. It is obvious and accepted that meaningful information about the object is already lost in reducing an object to its atoms. The same applies to reducing atoms to their constituents. Nevertheless, we have been looking for the smallest particles through reduction for centuries and are now trying to split the electrons and protons. With electrons, this has been successful but with confusing results. The reduction delivered the release of gamma-photons only. This must have been unexpected: in the electron/positron collision, the electron

split, and that result is inconsistent with the dogma that an electron is an elementary particle. There are also expectations and detailed ideas about the composition of protons and neutrons, but these ideas cannot yet be confirmed despite the research with the Large Hadron Collider. The proton is exceptionally stable, and we have not been able to isolate the postulated up and down quarks.

We can achieve nuclear fission, but if we want to take the path from composition to higher complexity, starting with nuclear fusion, we are only beginning to understand how this can be achieved.

We experience that the constructs electron and dodecahedron, as modeled by The Dutch Paradigm, represent an entanglement of gamma photons and gamma neutrinos, an extremely stable entanglement in terms of preserving its geometric composition. Historically, we would certainly have to call the proton an elementary particle compared with the verdict to the electron, but that is generally not accepted. The proton clearly shows spatial extension.

The intriguing issues of Lorentz and Poincaré also present themselves here. The proton has an electric 'charge' comparable with the electron and is therefore prone to explosion. In their line of thinking, these issues would have been solved by accepting the proton because of its demonstrable spatial presence as a composite particle with an internal forces system that permanently ensures coherence. Regular science then refers to the "Poincaré force" as the "strong nuclear force" without honoring Poincaré in this name.

> The problem of Poincaré and Lorentz does not arise in the proton model of The Dutch Paradigm. The presence of the strong nuclear force is assumed within the regular paradigm and is essentially a postulate.

The question, therefore, arises: how can the complex shapes of objects we perceive with our senses assemble and maintain themselves?

We now understand the composition of complex atomic objects from dead matter. We have applied this knowledge to techniques to transform natural materials into 'artificial' objects with which we can make our lives more pleasant. We can produce these artificial objects in large numbers in factories, but they remain products of 'dead' material. Life, all around us, is and remains a miracle in this work. We can tinker with living matter, but this knowledge has only widened the gap between dead matter and life.

We can form images from human thinking and, therefore, have an idea of an end product that can be spatially isolated in its environment. It is a chair, a bike, a roof, a bird, or a dog. We follow a logical structure to understand the composition of sub-elements that work together to determine the idea of the image. These sub-constructions form the object, an enormously complex network of atomic sub-assemblies.

To make this human thinking in compositions possible, the results of many observations of images must be processed. We recognize images and identify changes therein from previous observations.

It is precisely because of the increased knowledge of processing and assembling dead matter into new constructs that our awe for the existence of 'life' in complex compositions has grown.

There is also the problem that for this thinking, a (form of) memory must be available as a reference to observe changes in the environment.

Where can we ontologically interpret this human memory, and how does the data processing occur?

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The inherently necessary amount of data in processing to enable life in matter ontologically only becomes more puzzling in a physical sense. Whatever we as humans put together from dead matter, the constructs become subject to processes of natural equalization and "decaying to dust." It may take some time, but the humanly inspired artificial creations will eventually lose functionality through decay.

There is also the problem that for this thinking, a (form of) memory must be available as a reference to observe changes in the environment. Where can we ontologically interpret this human memory, and how does the data processing occur?

According to Wikipedia, ontology is also defined as:

Ontology is the philosophical study of being. It investigates what types of entities exist, how they are grouped into categories, and how they are related to one another on the most fundamental level. Ontologists often try to determine what the categories or highest kinds are and how they form a system of categories that encompasses the classification of all entities. Commonly proposed categories include substances, properties, relations, states of affairs, and events. These categories are characterized by fundamental ontological concepts, including particularity and universality, abstractness and concreteness, or possibility and necessity. Of special interest is the concept of ontological dependence, which determines whether the entities of a category exist on the most fundamental level.

An ontology differs from a database in that an ontology contains not only facts but also rules summarized in logical coherence. A structured semantics must allow the derivation of new facts.

Man is able to follow the observable behavior of the free electrical quants in context over vast numbers of Planck times, and the result is to process his memory and thinking.

For human memory, a distinction is made between:

- The sensory memory
- The short-term memory
- The long-term memory

Human memory works selectively and subjectively. By definition, the functioning of human memory is linked to the concept of time. Coherent information remains available from earlier observations. Observations that have been stored in an accessible memory and that are no longer physically available to the senses.

An entity bound in a proton or neutron does not possess this memory function and only equalizes to the last iteration. At most, you can say that the entity contains a reference to place over the range of 1 Planck time. In isolation, the entities do not have the electromagnetic capacity to provide the free electric quant with information for a subsequent position in time and place, just as no information about the previous position is considered to offer a next position in time and place. The adjustment of the free electric quant is instantaneous, unimpeded by their proper entity, and unique after 1 Planck time. The entity will follow its proper free electric quant.

It is then quite extraordinary that from dual thinking, we can ontologically understand that all those involved entities may chaotically interfere with each other but that an ordering of the entities follows after a period of chaos according to a fixed pattern. This gave rise to the construct electron and the composition of 12 electrons to the construct dodecahedron. Subsequently, the dodecahedrons can arrange themselves into neutrons, protons, and dark matter. The fact that this is possible and practically irrevocable results from the initial conditions of the Big Bang and the properties of the electromagnetic system of the entities. The entities themselves did not play a decisive role in determining the initial conditions. Exogenously defined conditions have made this formation of the electron and dodecahedron construct possible.

The process of chaos and adjustment to higher forms of order is deterministically contained in the combination of endogenous properties of the entities and exogenous conditions of origin, all of which emerged from a singularity in physical space.

The proton, a complex construct of two dodecahedrons held together by the proton bond, plays an essential role in this arrangement. The proton bond has the unique property that exogenous information from two NOW moments is available within its proper construct. Therefore, it can be seen as a construct as a basic form of information carrying and processing. This will be discussed in more detail in a later chapter.

The dual human being derives his physicality also from a specific arrangement of ordering protons, neutrons, electrons, photons, and neutrinos. He is a physical participant in this monistic world with the same underlying first principles.

The fact that man can perceive non-physical ordering processes through his thinking and physically participate in them from his will to act indicates ordering processes that transcend the physical monistic ontology.

7. PROCESSING OF SENSORY IMPRESSIONS, MEMORY

The human memory can 'store' information depicted from sensory impressions for short and extended periods. We derive the experience of time from this human quality. We learn to recognize the objects in the images we perceive. The image content remains available in an unknown format outside the domain of the physical monistic world. The format allows us, in due time, to compare and recognize objects in thinking.

How the objects as tangible illusions got their shape from the monistic arrangement of atoms is unknown. Integrating quantum physics into concepts to allow monistic objects to live is even more mysterious.

We encounter living tangible illusions that can be memorized.

New input based on The Dutch Paradigm may trigger new ideas in other sciences for further progress in understanding first principles and related evolution, as for objects showing aspects of living substance.

For this reason, in this fourth book in the series of The Dutch Paradigm, attention is paid to phenomenological aspects that show themselves in sensory perception from the monistic manifestations of the entities gamma photon and gamma neutrino.

Again, phenomenology according to Wikipedia:

Phenomenology is the philosophical study of objectivity – and reality more generally – as subjectively lived and experienced.

It seeks to investigate the universal features of consciousness while avoiding assumptions about the external world, aiming to describe phenomena as they appear to the subject, and to explore the meaning and significance of the lived experiences.

This approach has found many applications in qualitative research across different scientific disciplines, especially in the social sciences, humanities, psychology, and cognitive science, but also in fields as diverse as health sciences, architecture, and human-computer interaction, among many others. The application of phenomenology in these fields aims to gain a deeper understanding of subjective experience, rather than focusing on behavior.

The first phenomenological phenomenon is that sensory perception focuses on

- 1. Sight
- 2. Hearing
- 3. Feeling
- 4. Sense of smell
- 5. Sense of taste

Further considerations will mainly focus on the first three sensory perceptions.

For vision, photons must be captured in the eye at a frequency in the 10^{14} Hz range. The Dutch Paradigm assumes that from the Big Bang onwards, the free electric quants of entities became electromagnetically active at the gamma frequency of approximately 10^{23} Hz. The naked gamma photons went through a phase of energetic depletion due to momentum transfer before the oscillation frequency of the electron was reached. This energetic depletion can occur both within the stars and through impact from planets and other larger objects. Only in this part of the spectrum, around 10^{14} Hz, are sharp reflections from objects possible.

The photons that interfere with the visual frequency in the retina are not reflected to any significant degree in humans. It is known that animals can have a tapeticum lucidum. This is a specific light-reflecting layer in addition to the retina. In humans, the retina is not reflective.



The human eye absorbs the photons in the electrons in the atom's outer shell as per the photoelectric effect. Atoms that are configured on the retina in cells: cones and rods.

Wikipedia on photoelectric effect:

The photoelectric effect is the phenomenon in that electrons not firmly bound to an atom are released after absorbing sufficient energy from incident light. The phenomenon was discovered by Heinrich Hertz in 1887 during his experiments with electromagnetic waves.



Ref.: Mosely

Electric current could be generated by irradiating a metal. Later, Philipp Lenard would see a connection between the radiation frequency and the frequency of the radiation used and the current generated (in this case, the number of electrons emitted). In the thinking of the physicists at the time, a connection was only possible with the intensity of the radiation, but not with the radiation frequency. This was not the only strange behavior of the electrons: the voltage needed to stop the ejected electrons (the braking voltage) turned out to depend only on the frequency and not on the intensity. This was completely contradictory to the wave theory of light that prevailed in that timeframe.

According to the insights of The Dutch Paradigm, this description of the photoelectric effect represents the first compilation of image information of an object:

Based on the insights of The Dutch Paradigm, a series of free electric quants, photons, in the viewing area can cause a premature oscillation of an atomically bound electron in a time sequence.

Due to the premature oscillation, a Coulomb ejection of the electron occurs due to the anisotropic-acting electric 'charge.' The electron goes out of orbit from the atom.

It is, therefore, possible to release a stream of electrons from an object during high-frequent illumination with reflected photons of the correct frequency.

It is also remarkable here that in addition to compounding, there is also a large amplification of the signal of the free electric quant because:

The spinor oscillation of the electron also generates an exogenous signal amplification up to the value of the electrical 'charge' of the emitted electron.

To support a continuous emission by this photoelectric effect requires a supply of suitable electrons to replace the emitted electrons. Classically, it is assumed that an appropriate source of direct current can supply these electrons.



The specifics of how such a system functions anatomically and physiologically in the eye are part of the science of physiology.

Wikipedia Physiologie:

Physiology is the scientific study of functions and mechanisms in a living system. As a sub-discipline of biology, physiology focuses on how organisms, organ systems, individual organs, cells, and biomolecules carry out chemical and physical functions in a living system. According to the classes of organisms, the field can be divided into medical physiology, animal physiology, plant physiology, cell physiology, and comparative physiology.

Central to physiological functioning are biophysical and biochemical processes, homeostatic control mechanisms, and communication between cells.[5] Physiological state is the condition of normal function. In contrast, pathological state refers to abnormal conditions, including human diseases.

It is conceivable that a time-sequential arrangement can build up in the rods and cones of the retina. A separate chapter briefly describes what is known about this.

It should be noted that an electron emitted in this way as a data carrier has an information density that far exceeds the basis of zeros and ones used in information technology. The received photons are compounded in the electron over an extremely high number of iterations to arrive at a frequency in the viewing field of 10¹⁴ Hz that can provide a prematurely generated electron oscillation. The oscillation and related spinor action is the conclusion of this compounding phase, with the spatial release of an electron with a signal value of 1 Coulomb.

System-wise, this compounding and oscillation can be compared to an MRI scan, where an early spinor action is also generated, and the response to relapse can be registered as a signal for image processing.

It can also be noted here that the basis of this (first form of) compounding arises from the original formation of the construct electron. This configuration of the electron from a gamma photon and a gamma neutrino emerged with a frequency difference of the two components of approximately 10^{14} Hz.

We can also establish that the information-carrying incoming photons always provide a time-delayed image of the object. It gives, in a compounded way, a reflection of many past events to be prepared for an overview at ultimately at the framerate of the human eye.

This phenomenon is similar to a camera, such as a rolling shutter.



We always see what has been. This time delay from the object to the eye is minimal and typically produces no image distortion after compounding to a frame rate of approximately 20 - 60 times per second. The retina is periodically fully exposed within the visual range before a kind of termination of a series of photonic impressions occurs. The image is made quasi-static by a form of compounding of extremely many manifestations of free electrical quants.

The compounding from the retinal configuration results in a system frequency of approximately 10^{14} Hz, and there is still a long way to go to achieve an image frame rate of about 20 - 60 per second.

The image we thus receive on the retina becomes available for thinking.

The question then arises: how and what do we remember from the images we have formed in our minds? And how can we bring that memory of those images back into consciousness?

We can generally recognize two different forms of storage of the image content:

- In a short-lived sensory memory
- In more extended storage, to be divided into

o Short-term memory

o Long-term memory

The basis of how human memory functions is still mysterious and remains the subject of study. Little is known about what types of content we can remember and in what format the 'information' is stored. We also do not know how we can consciously recall the information for recognition during subsequent sensory observations later in time.

More is known about short-term sensory memory when images and situations in successive frames are perceived.

Wikipedia describes this as sensory memory.

Sensory memory

The sensory or sensory memory is, as it were, an extension of the senses. It is very limited in duration and only lasts a few seconds. Both the consciousness and the subconscious use this short-lived memory. People also have a particular 'alertness' to a greater or lesser extent, which also occurs consciously and unconsciously. For example, the sounds of words in a conversation can be combined into sound sequences but not yet into words. The auditory variant is called the echoic memory (soundtrack), and the visual variant is the iconic memory (image track).

The operation of momentary sensory memory is as if it could allow for a temporal extension of the process of the senses over several frames. Thus, perceiving and maintaining an image over time will enable us to detect the movements in the viewing area in comparison. We experience that the movements of objects attract our attention, which is where we focus our visual sensory 'focus.' We then consciously follow the course of movement over several frames. This tracking is then based on the distinctive visual ability that we have to isolate a moving object in our vision system from its environment and to "follow" the progression of the movement over time. The experience of the times is that we compare several frames in thinking about image content. The focus on the moving objects produces images with a higher degree of detail than the surrounding environment. It is based on a sensory-related quality.

The degree of retention of detail before storage can be simulated by closing your eyes and noticing that we actually only remember the area in focus to some extent and even that in an already lower degree of detail as an afterimage. With the eyes closed, the image of sensory perception quickly fades.

Various methods are conceivable to detect such processing of movements in the focal area functionally. The time-shifted images can be compared if the visual area of the left and right eyes is perceived asynchronously and/or at different frame rates. It is also possible that the focal area, the yellow spot, observes with a higher frame rate than the processing and temporal preservation of the surrounding visual image. In any case, processing the sensory impressions creates a time experience in experiencing the everrenewing NOW. This time, experience apparently follows from a built-in functionality of the vision system. This phenomenon is used when making cartoons by building a scene by projecting a moving figure in successive frames on a stationary background. The image of the figure is then disconnected from the static background.

This sensory functionality is also present in hearing. When listening to a speaker, we can form successive sounds into recognizable words, and during a musical performance, we can distinguish the melody's rhythm. Something similar applies to learning to read a text. The letters are recognizable, and words and sentences are presented in a logical context. The writer has coded all this in a learned manner, and the reader is able to decompose and reconstruct the substantive transmission of the message.

We recognize this coding and compare it in a logical context in many places in everyday life in what we can perceive as images. Phenomenology attempts to achieve such a logical context over a more extended observation period. We suspect examples of compressing relevant image information through an encoding but do not yet understand them. It is similar to the human genome. We can already note this, but how the codification can be reconstructed into relevant content is still virtually unknown. Image contents are likely processed into a readable memory differently than how we solve this in information technology for all image points and pixels in the field of view.

You can then cautiously conclude that we can only perceive movements and sensory sounds when the manifestations are known to us within a few frames in sufficient detail through compounding to spatial content.

A lot of thinking is currently being done in this area. In particular, it is being investigated how robots can be provided with perception systems to enable emulation of human actions.

Storage of a readable memory function within the entities goes against the nature in which the monistic system shows itself to us. The memory function is dual in nature, and the monistic system can be used to construct a memory function, but the monistic system itself cannot be adapted for this purpose. In a metaphor, the monistic system is the material, and we process it - passively and actively - into the image form.

These monistic manifestations take place in the imperative actual NOW, and even so, the dual human being can experience both the image content and the coding based on the compounded sensory processing of received photons emitted by the objects under observation. Man takes care of his own experience of time and is selective in what he 'stores' of observed events in his memory.

There are even more details that play a role. We see with two eyes, which appear to work asynchronously in perception. When we see an image through our two eyes, we do not see that both eyes also see (part of) the nose. It then appears that that part of the image is shielded. This is possible, for example, if there is a slight phase shift per eye in the start per frame so that with two eyes, for example, we do not suffer from obstruction of vision due to the presence of the nose. Something similar may also be the case if the blind spots of both eyes do not obstruct your vision. You can imagine this as an optical shift due to a chronological difference per eye of the frames of perception. The other senses may also possess similar peculiarities.

It is quite conceivable that the sensory perception faculty for sensory memory has an endogenous physical built-in system available to encode movements over the frames of sensory perception and to process them unconsciously in thinking and has content available for a short period over some frames.

The other senses may also possess similar peculiarities.

It is conceivable that the sensory perception faculty for sensory memory has an endogenous physical built-in system available to encode movements over the sensory perception frames and process them unconsciously in thinking.

The long-term storage of images is apparently based on a memory of relatively small amounts of details. Details as they were available 'at the time' in the image or can be in anticipation projected through forethought. This small amount of detail is somehow stored and is available for a more extended period in the non-sensory 'memory.' If a detail has been studied very often, the image in memory may also become more affluent in factual content. Perhaps this also provides a basis for what we can observe in our dreams, up to and including lucid dreaming and musical performance of learned compositions and acting.

There are so many variables to indicate in this image recognition and recording process that a simplified description, as stated here, is inadequate. I am giving some characteristics only to suggest that a field of dual information processing emerges here. The human primarily experiences sensory imagery through the compounding of monistic manifestations of the free electrical quants and experiences time through the perception of movements in chronologically successive frames of imagery. The image information stored in memory over a more extended period only has a fraction of the sensory image content. Moreover, a subjective selection has been processed and woven into that content through individual focus within the shown area of perception. Even what we have observed as an image in 'real-time' is selected in focus view and, therefore, subjective to what reveals itself to our senses.

As indicated earlier, it is a separate question of what variation in these frame rates due to the number of iterations per frame can result in focus for movements. Recording at a high framerate and playing a film focusing on birds or microscopic animals, for example, produces completely different image content than what we humans experience from our direct sensory observation. The same applies to the movements of galaxies at very great distances. We see our environment in the way our vision is physically equipped for and focus our thinking, feeling and wanting on these image contents. That is inherently a selection from what the physical world offers regarding visual information.

Why can we experience all this in what is happening on a monistic level? We can process the observations into images through compounding, store images in limited detail, remember images in focus from this storage in memory, and process them in our thinking through feelings of sympathy and antipathy. All such interactions are based on information gathered from the monistic world for which the origin and the first principles are still shrouded in mystery. The fact that we can also manipulate objects in this monistic world by moving our 'living' limbs is equally challenging to understand. We can independently form unique images in that monistic world that emerged with the Big Bang.

We live our lives from a creative will.

It is common in regular science to assume all these functionalities are endogenous functions of our brain.

There are still a few details to report that are related to the human ability to form images. The objects must reflect photons to make themselves visible. Reflected photons will be captured and processed on the retina to project an image of an object in the brain. The objects must be spatially distinctive to show themselves to us. Such shape retention is not possible in the gaseous and aqueous phases. That sharpness must represent a jump function in one or more spatial properties of the object. Most important is that the object must represent 'solid matter.' Such shaped objects are observed at a short distance. and relatively stable in retaining their shape. This shape retention is not possible in the gaseous and aqueous phases. Then, the retina's surface is functionally organized with rods and cones. The cones enable the eye to focus on details in a specific area in the field of view. This provides a subjective initial selection of detail in the perceptual content of the objects in the environment. Outside the focus area, the observation content is less detailed. This operation and structure of the eye allows the observer to provide selective compaction and thinning of the information immediately after exposure of his eye before capturing spatial information about the objects in the human field of view. This functionality is built into the location and number of rods and cones. It certainly seems that the function of collecting sensory information by man is based on the targeted feeding of his personal appreciation and urge for reaction to what appears in his field of vision. He can differentiate the level of detail by eye and head movements to make an optimal assessment possible to avoid data overflow. According to current views, the information from the captured photons is processed into an electrical current that flows through potential differences through the optic nerve to the brain. It is known what systems are active up to the cerebral cortex, but it is not known how this flow of information can be instigated through life processes. A dead human eye cannot generate such an electric 'current.' We can make a bionic eye nowadays, but its operation is based on entirely different principles.

It is common in science to assume all this is endogenous to the functions of our brain.

An important question arises:

why is the frame rate of the visual system tuned at the level of 20-60 per second?

The monistic system of free electrical quantities that change position at the speed of light provides images of 'dead' objects that behave predictably throughout our visual sensory system. The connection became increasingly better understood. This classical physics led to increasingly refined physical laws. At the beginning of the last century, confusion and

doubt arose about what we observe. In essence, it turns out that these objects are tangible illusions.

What do we mean when we assume the brain can process the information the eyes provide into images?

It is unlikely that these images are only created by the functions of the brain.

It certainly seems that man, in his sensory perception and the thinking formation of images, is equipped with a not-yet-understood ability to derive additional information from what appears outside our senses. And what shows itself in the physical world by the first principle does so monistically as a tangible illusion.

It is conceivable that different frame rates and dimensions of what humans perceive in the field of view could lead to different perceptions. We simulate this, for example, by accelerated playback of films and animations, and it turns out that there is much more movement than what we experience within our parameters in frame rates.

We can record with a high-speed camera at different frame rates and display them at the human visual frame rate. We then see the movements taking place much more slowly, and we can visually perceive more details. Similarly, we can flash stroboscopic and thus optically change the result of the compounding.

Such recordings indicate what we can and cannot distinguish with human senses and compounding. At light speed, monistic, at a frame rate of approximately 10⁴⁴ everything almost stands still, manifests itself with a displacement of 1 Planck length per 1 Planck time.

The connection of quantum physics with classical physics requires pure empathy from the dual-minded person. Through modeling, we can represent the images that show themselves to us at frame rates associated with the phenomena of quantum physics in the first recognizable forms. Forms in which man has been able to think of the tangible illusions in classical physics as laws of nature.

In this new thinking, The Dutch Paradigm has established the modeling of quantum physics.

8. DUALITY IS THE FIRST PRINCIPLE OF THE EXPERIENCE OF TIME

It has previously been argued that time, as man experiences it, is built up within him as an experience based on perceiving many NOW impressions. Such a statement aligns with other unusual views The Dutch Paradigm uses and is not easy to comprehend. For example, this was previously the case with The Dutch Paradigm model that humans in the physical world are monistically only tangible illusions and do not possess mass. However logical the explanation may be, there is a conscious and unconscious tendency in the reader's interpretation to fall back on the cultural imprint in which we have been partly formed through experience and education. Metaphors can then help to use the cultural imprint of similar phenomena to gain a better understanding. A metaphor can then be used as imagery that relies on the similarity between what you mean and what you write or say. It is an assist for speech, a form of description of something similar that is recognizable.

For example, Wikipedia describes the concept of time as follows:

Time is a physical quantity. Time in the classical sense, is the phenomenon that events can be ordered; that an event can be said to occur after or before another event.

This description of time implies that at least two NOW states must be observed to be ordered.

This is only possible if one of the two NOW states is available in our thinking to make the comparison with the currently observable NOW. It can also mean that we imagine our intention to change the NOW in our thinking. Duality is necessary to evoke a state that monistically does not exist in the actual perceived NOW.

Monistically, each NOW impression after 1 Planck time shows a new NOW appearance that we dually denote as the result of the successive displacement of the free electric quant by 1 Planck length. That the NOW reflections represent that originated at different times is a dual assessment and not in itself proof that time, viewed objectively, also exists. It is about perceiving the NOW at the place and moment of sensory perception.

As an insight, this is not easy to understand and difficult to describe.

A metaphor can be helpful to explain this.

When you read a book as a conscious human being, you do so in order from beginning to end. You read page by page, and you can understand the letters put together into words and sentences. You follow the storyline, and it can describe many scenes you can place in your mind and context. It is always a mix between sensory recognition of letters, formation of words and sentences, and a memory of previously read passages. A learning process has supplemented your general human development with the ability to interpret a description of scenes. So you understand the vocabulary of letters and words, the concepts, the grammar, the context, and more of what you have culturally received from transmitting the written word. You experience reading a book as a revelation of events and experiencing emotions.

If you put the book aside and pick it up again later to read, you pick up the thread again.

The way you read a book does not change the book itself. The book is also unaware that it is being read. The act of reading it comes from you.

This metaphor indicates that the book itself has no physical timeline other than an inactive, dually experienced object. The act of reading the book and the associated imagery creates an experience of time for the reader.

What is notable is that I can also write a book myself.

The conscious experience of the ever-adapting NOW impressions suggests the personal experience of a timeline on which the movements of the impressions show themselves in context.

I type words and write a connection that, to my knowledge, has never been described identically or literally in this way before. I experience converting images and thoughts in my thinking into actions as an expression of my free will in the physical world. Man's thinking is not physical and does not come from the monistic physical world. Yet, I can modify the physical world to my will through actions. As humans, we experience this human behavior as causal in pursuit of an apparently intended goal. We project the expected adjustments in the NOW impressions on a timeline.

We can, therefore, assess the adjustments to the NOW impressions in two ways:

- 1. Objectively proceeding according to the laws of nature. Man experiences the causality of these laws as exogenous, as something in which he has played no role.
- 2. Subjectively progressing along the desired adjustments by the living subject. This causality has an endogenous character. It is the adjustment he intends to make in the outside world.

The deeper meaning is that the changes in the NOW impressions we as dual humans cause are not exogenously predictable. We live in the physical world and can adjust NOW impressions. We write our own life book from a non-physical experience of thinking.

The transfer of subjective thinking can take place in many different ways. In words, writing, physical images and objects, love affairs, crimes, but also formulas, models, photos, films, and sound recordings. Forms of recording and transfer of information that we call communication.

The life that has been lived and described cannot be changed, but others can work on the fruit of that work. My individual thoughts and thoughts are non-physical yet transferable to others, including those who come after us.

Recording is increasingly possible in greater detail due to the many new technical resources. These resources enhance man's experience that he lives in a time stream. We perceive written words but also 'recorded' images and sounds.

The information we take in is 'dead' in that it can not change those NOW impressions, but it can inspire feelings of sympathy and antipathy. Emotions come from the dead world but can also be generated by the actions and writings we experience as a cultural transmission of images from the past.

If you look at this in thinking - and this or that philosopher will undoubtedly have put it better than is available here - then it can be understood that we as living humans are continually expanding and refining the timeline in thinking.

As humans, we are increasingly mastering the freedom to record and read out sensory memory through exogenous recording. This contrasts with other living organisms with sensory memory, not having the ability to record thoughts consciously. Human beings recognize other living objects around them, like animals and plants. We also perceive minerals and substances that, in our view, do not belong to living organisms and are indicated as inorganic. In the physical world, we perceive predictable repetition in the behavior of the inorganic material. We have elevated such predictable behavior to laws of nature. They are the classical laws of physics that appear to be unchanging over vast intervals of time. Meanwhile, we observe processes on the minute scale that work deterministically in the monistic world of the free electrical quants. This monistic world is stable and shows predictable behavior is observable over the NOW manifestations experienced by us in time and place.

The physical monistic world does what it has to do. This world works deterministically, instrumentally, and each naked entity - according to the perceiving human being - only has to do with its own 'electromagnetic equalization system.' The electromagnetic equalization system is accepted as the preferred model of the dual, thinking human being to codify the coherence in the behavior of the 'elementary particles.'

Monistically, only for each entity is the NOW presence that shows itself to the observer after each Planck time with the displacement of a step size of 1 Planck length of its free electric quant. There is no compounding observable in the NOW manifestations.

But, from the origin of the objects as multiple composed of entities, the living observer - and that is all of living nature - has the dual possibility of making a comparison through a first form of 'compounding' about at least two NOW appearances of the free electric quant of the entity.

Further compounding is possible through the high-frequent repeated observation of the electron, the neutron, the proton, etc. This additional compounding in sensory perception is expressed in the comparison between two systems that can never achieve perfect tuning in frequency: the photon and the neutrino. The phenomenon of electron oscillation occurred. This phenomenon is monistic but simultaneously the basis for forming the electron and the subsequent sensory perception of objects.

These oscillations arise from the impossibility of uniting two similar phenomena directly after the Big Bang. These oscillations result from perfect imperfections.

The squaring of the circle prevented perfect alignment.

9. SENSORY RECORDING OF VISUAL DATA

Johann Wolfgang von Goethe indicated in his time that the eye was created by light for the light.

Such a general statement is poetic. You can't do much with it technically and operationally. The methods technicians use to receive and record visual data cannot easily be traced back to how science assumes that 'the' eye in sensory vision leads us as dual humans to form images in our thinking.

The photon is an information carrier for transferring optic available information of an object. Photons show in some form the presence of an object. Electrons in the outer shell of an atom in the receiving eye can capture such photons.

The captured photons have the potential to show in a compounded presentation a sharp image of the object. Such a sharp image requires photons to act at a frequency in the visible part of the electromagnetic spectrum.



A photon's frequency must be equal to the frequency at which a receiving irradiated electron will oscillate.

Then, when a photon at the proper frequency is captured by such an electron in the outer shell of the receiving atom, the photoelectric effect might ensue, releasing an electron.



The photoelectric effect is well known but not its essential requirement to instigate a time-forced oscillation of an electron.

To activate the visual sense, a sequence of operations is required:

- 1. The recording of the image
- 2. The coding of the image

THE RECORDING OF THE IMAGE BY THE HUMAN EYE

We can compare the recording of the image of an object with a reflection of a mirror image. What the mirror image 'sees' is the sharp reflection of photons from the original.



We see that such a mirror image transitions from 3D to 2D for both the eye and a camera.



Notable differences are:

• in projected surface, concave versus flat

• in the image sensor, there is one type of receptor only. The eye works with two types of receptors: rods and cones.

• The total occupancy of the sensitive surface of the eyeball is approximately 120.10^6 rods and 6.10^6 cones. The cones are uniquely wired, and the rods are bundled in groups

In the eye, the retina is tuned to support differences in functionality. The cones are concentrated in a small area to allow and focus on the visibility of details (yellow spot, fovea)

Physiologically and anatomically, there is much knowledge regarding the human eye. The science that deals with this is mainly medicine. It is the field of medicine that recognizes disorders and focuses on recovery. The approach involves biomedical treatment and surgical intervention. This is an essential difference from other areas of science, where attempts are made to apply the acquired knowledge for technical purposes.

What is striking when studying the available knowledge of the human eye is that this knowledge is primarily recorded in visual descriptive form and drawings of cross sections.

In the eye, many different structures can be distinguished from living cells. Cell membranes mutually and functionally separate the cells. Such membranes function as a separation and point of transfer of substances and information to and from the environment. The eye is connected to the blood and nerve structure for this purpose. The eye is sometimes called an outgrowth of the brain.

The functional quality of the eye decreases due to diseases and aging. The cells renew periodically but with vast differences in lifespan.

It can be stated in advance that the eye is so complex that it is virtually impossible to make an artificial eye comparable in structure and function. It is striking how simple a video camera is compared to the eye.



Human eye. (2023, August 24).. https://en.wikipedia.org/wiki/Human_eye

Many eye disabilities can be cured, and adjustments to lens function are the best known. The retina and optic nerve disorders cannot be repaired, but the causes of damage are known. This makes it possible to stop further damage to the retina and optic nerve, particularly by normalizing the eyeball pressure.

Functional physiological knowledge is, I suspect, classical but most probably will encompass the understanding of the photoelectric effect and then within the prevailing paradigm of quantum physics.

I can, therefore, safely assume that insights from The Dutch Paradigm will be new, just as I do not have detailed knowledge of the anatomy and physiology of the eye as it is transferred to ophthalmologists.

Let us first look at what we can do with technical means to record and display an image in our environment. We do this with arrays of transistors that can provide a binary electrical signal. This signal is based on electrons released by exposure according to the photoelectric effect.



This effect is also comparable to what happens in the eye's retina. In both cases, a photon in the viewing range of approximately 10¹⁴ Hz will cause a premature oscillation of an electron in the outer shell of an atom. The asynchronous change modeled by The Dutch Paradigm is unknown in the prevailing paradigm.

As indicated, the sensors and the occupancy of the light-sensitive surface of the retina are different. A technically composite camera sensor is a CCD (Charged Coupled Devices) chip with a uniform occupancy of identical receptors.

The CCD information is transferred according to the bucket brigade:

Wikipedia, miscellaneous and selected quotes:

As indicated earlier, the sensors and the occupancy of the light-sensitive surface of the retina are different. In comparison, a technically composite camera sensor, is a CCD (Charged Coupled Devices) chip with a uniform occupancy of identical receptors.

The CCD information is transferred according to the bucket brigade:

Wikipedia, miscellaneous and selected quotes:

A charge-coupled device (CCD) is an integrated circuit containing an array of linked or coupled capacitors. Under the control of an external circuit, each capacitor can transfer its electric charge to an adjacent capacitor. CCD sensors are a major technology used in digital imaging.

Loads can be transported from one side to the other by alternately opening and closing the switches. An old name for this principle is "bucket brigade device," referring to the bucket brigade that used to pass buckets of water in case of fire. CCDs are used as a delay line in television receivers, among other things, but are best known as the chip that can convert a photographic image into an electrical signal. This uses electrons generated by photons collected in the tiny capacitors. The chip here contains several rows of CCDs linked to each other.

Electrons can be collected in some capacitors - but not all - by applying electrical voltages in a certain way. The capacitors that cannot contain charge serve to electrically separate capacitors that can collect charge from each other. The capacitors exposed to light collect a specific charge of electrons depending on the amount of light. They form pixels or pixels and, together with the lens system, determine the resolution (resolving power) of the CCD.

Through further miniaturization, CCD chips can now be made with 30-50 million (mega) pixels. The occupancy of the retina with 120 mega rods and 6 mega cones is comparable in order of magnitude.



The design of a camera can vary significantly in size:

It is unknown whether the receptors on the retina also work via the bucket brigade. It seems likely to me. The premature oscillations can release electrons at 10^{14} per second. This is a very high frequency of providing visual information compared to the frame rate at which the image received by the eye is created in the mind.

The electrons released by the cones and rods are introduced into nerve cells as a signal carrier. The signal transmission takes place chemically through ion exchange across the membrane boundaries of the nerve cell, a neuron.



Neuron. (2023, March 13).

Wikipedia:

A neuron (or neurone) is a nerve cell that carries electrical impulses. Neurons are the basic units of our nervous system.

Neurons have a cell body (soma or cyton), dendrites and an axon. Dendrites and axons are nerve fibers. There are about 86 billion neurons in the human brain. Almost all brain cells are neurons. The human brain has about 16 billion neurons in the cerebral cortex. The neurons are supported by glial cells and astrocytes.

Neurons are connected to one another, but they do not actually touch each other. Instead they have tiny gaps called synapses. These gaps are chemical synapses or electrical synapses which pass the signal from one neuron to the next.

The optic nerve transmits impulses through an electric potential over the cell membrane. It is indicated as the action potential. This action potential is not triggering an electrical phenomenon comparable with the "flow" of an electric current through a conductor but more of a chemical process in which concentration
gradients of ions over the cell membrane act to provide the action potential relative to the in- and outside of the cell. In a metaphor, it acts as a bucket brigade.

The transfer of an impulse through the optic nerve is slow compared with the transfer of an electric pulse through a copper wire. The range of speed of transfer varies relative to different nerves and is roughly between 1 to 2 m/sec.

The membrane acts as an electric isolator. It has a structure of a double layer of phospholipids with a lot of protein. Ions (charged molecules in a watery solution) will not transfer through the membrane. They have to be activated by a kind of pumping function or channeled through parts of the membrane that regulate passage by opening and closing. The regulation of passage is governed by the neutron with conservation of a difference in potential of some tenth of a millivolt. The inner section of the neuron is about 70 millivolt negative relative to the outside. A trigger of the nerve starts with a time delay of approximately 1 msec to depolarize the potential to some 35 millivolts positive. After the transfer of the ions, the potential is regenerated to negative 70 millivolt.

The system cannot be triggered again during the period of regeneration. This is an absolute period of closure of the passage before the process can start over again. The depolarization process is as a bucker brigade, it is one full bucket or nothing.

On both sides of the membrane is a gradient in concentrations of important ions of sodium and potassium. Within the cell are sodium ions dominant, and outside the cell, the potassium ions. As per the trigger, there will be an immediate transfer inwards the cell of positively charged sodium ions with subsequent impact on the action potential. Next is the opposite when potassium ions enter the cell.

After some milliseconds, we see a restoration of the regulation of the system and the start of a slow recuperation by pumping the sodium and potassium ions back into place for the next sequence to act on with a next trigger for opening the gate for a fast transfer of sodium ions out and potassium ions in. The process comparable with a bucket brigade is active whenever impulses are transferred over cell membranes.

Although this is not further elaborated here, this form of signal transmission provides both the redundancy in signal supply, compounding, and the delay in release for further processing.

The human eye itself changes only slightly after birth.

The eye grows to approximately 21 mm during the first year of life. After this, a delay occurs while the rest of the body grows. During puberty, the eye has a growth spurt to about 23 mm and then stops growing.

The number of rods and cones is fixed from birth, and damage to these receptors cannot be recovered. In the entire eye, we can recognize active parts that became available once in an orderly manner but whose quality will diminish through the years without the ability to recover. The lens is a clear example of this. The cell structure that provides the signal processing is periodically regenerated, but the light receptors cannot renew.

In the brain, nerve cells die on a regular base, and new ones arise through cell division. It is unclear whether this also applies to the other nonbrain nerves.

The brain can create new connections between neurons (brain cells). This allows the brain to reorganize. Millions of neurons die daily, so the brain must constantly renew itself with new cells. Neuroplasticity is, therefore, a continuous process in your brain.

This phenomenon is known as neuroplasticity:

Wikipedia about neuroplasticity:

Neural plasticity (also neuro- or cortical plasticity or simply plasticity) refers to changes in the organization of the brains of individuals. Neural plasticity is part of brain development in children and also occurs due to development, learning, or experience in normal adults and after brain injury.

Brain development

People are born with a complete cerebral cortex and collection of nerve cells. The most crucial development in childhood consists

of forming new connections between these brain cells: synapses are added (synaptogenesis), but redundant synapses are also removed (pruning). Initially, there are probably many more synapses than necessary. In the final network, after removing the ineffective synapses, only the effective synapses remain (see figure on the right). This allows a progressively finer tuning of networks of neurons to the demands of the environment. There is also a gradual increase in white matter (myelination) and proliferation of glial cells. The last two factors substantially increase brain volume in the first 6 years of life. The synapse formation and removal process appears to be completed earlier in the primary cortex than in the association areas (e.g., the prefrontal cortex). Research with rats[1] has shown that the nerve cells of young rats growing up in an enriched environment develop more processes (dendrites) and synaptic connections than rats in an austere environment. In age-related diseases such as dementia, on the other hand, a decline of dendrites and neural connections occurs.



There are three stages in the growth of neural connections and synapses in youth, according to J.P. Changeux. Early development, temporary abundance or redundancy (there are more connections than necessary), and selective stabilization. In the neural network, effective synapses are selected by eliminating the redundant connections.

THE CODING OF THE IMAGE

CCD chips are constructed according to a matrix represented in a number scheme. The usual representation is a rectangular diagram with one side in the direction of writing and the other perpendicular to it so that the numbers are arranged in rows and columns.



The retina is not divided according to a matrix and is 'hard' wired. Each cone has its nerve pathway. Rods are guided in groups along the same nerve path. There are approximately 130.10⁶ receptors whose signals are carried over 1.2.10⁶ axons in nerve cells. This compounding is, therefore, functionally built into the design of the eye. The hard-wiring directs the signals to the visual cortex. The eye movement allows an image to be scanned from the focus of the macula.

The complex wiring of nerve cells follows a recognizable path from the exit of the optic nerve to the visual cortex.



Retina. (2023, August 4). In Wikipedia. https://en.wikipedia.org/wiki/Retina

The hard-wiring between the retina and the visual cortex is additionally anatomically functionally organized. The structure of the retina into a focus area and the surrounding areas shows that in addition to a timeoriented, there is also a spatial compounding.

The presumption that the eye is constructed this way and functions 'by design' implies that the functionality did not arise from purely monistic equalization processes. The eye is the result of a creation process in which (human) reproduction has ensured the transfer of dual information to build and compose the eye. This information is dual because the information unfolds from a coding in the DNA.

The eye and the cones and rods within it are at least partly under the influence of these equalization processes, and life processes are necessary to maintain functionality. The retina is, therefore, connected to the blood supply.

It is unknown how life processes also contribute to any active processing of the information the photons provide.

We touch the boundaries of the monistic and the dual world. Not only in the physical structure but especially in processing images from the physical world to decide actions.

10. THE EYE PROVIDES THE COMPOUNDING OF THE IMAGE

Already within the vision system of the eye, we see a first step in compounding visual information about the object under observation. This first step is that an interfering photon with the proper differential in the frequency of the gamma photon and the gamma neutrino (Δ hf) will allow for the timely magnetic compensation of the gamma neutrino to change chirality in the center of the limaçon.

This first step is an incidental fill-up of the gamma neutrino's systematic energy deficit ('mass' or free magnetic quant).

Subsequently, the electron will oscillate and perform a spinor rotation. The visiting photon is ejected. The premature spinor is incidental by consequence, and the electron will become prone to Coulomb repulsion by the nucleus of its proprietary atom.

As a result of the photoelectric effect, an electron in a receptor in the eye - a cone or rod - is released by repulsion.

This is, in short, the description of the photoelectric effect.

The now free electron will then experience a potential allowing electric equalization. Such an electric potential is available due to the ions within the vicinity of the receptor. The rods and cones have suitable ions within the boundaries of the cell membrane to absorb the released electrons.

We must bear in mind that these events happen at almost the speed of light and gamma frequencies of some 10^{23} Hz. The energy of the free electric quant of the photon at the frequency of 10^{14} Hz is very minor. The systems work monistically and must, as per individual electron at a minimum, bridge this energy gap. Hysteresis and equalizing dominate in sequencing the process steps up to completion.



The released electron provides the first amplification of the initiating free electric quant with the energy content of Δhf to the value **1** *E* of the electron.

With this amplification of the signal to 1 E, we enter the area where the observation signal can be processed according to the knowledge of the sciences of classical physics.

The release of the electrons causes equal numbers of atoms bound in molecules to become ions. To permanently repeat the photoelectric effect, these atoms must be deionized again by regeneration.

The further understanding of this stronger signal's processing follows the knowledge available in chemistry and biochemistry.

A group of electrons released in a short timeframe is biochemically processed in subsequent signal-processing steps. In ophthalmology, this is known as photo-transduction. With cones, the compounding occurs from 1 cone to 1 nerve pathway or 1 neuron. With rods, the bundling of signals in neurons provides sufficient distinctiveness in the out-of-focus area. The eye can bring into focus any area within the range of vision through movement of the eyeball and head. Therefore, we assume that we see the entire visual area sharply and in focus, and think that we divide our attention. In reality, we can only see a small area in focus, but with our eye moving, we can scan the entire area in focus.

Photo-transduction is a complex process, about which much is now known from a phenomenological perspective.



The figure shows in a pictural format for a rod that the 'captured photon breaks open a molecule of 11-cis-retinal' into 11-all-trans-retinal. The information signal of the photon becomes amplified as per the photoelectric effect while leaving the molecular structure of 11-cis-retinal ionized.

Regeneration then takes place by an enzyme, and the receptor is suitable for a photon's subsequent reception.



The signal is subsequently processed across the cell membrane by exchanging ionized and neutral molecules to and from the nerve cell.



At the peak action potential, Na* channels close while K* channels open. K* leaves the cell, and the membrane eventually becomes benerrolarized

Depending on the concentration of 'hyperpolarization,' a physical passageway is kept open or closed. The hyperpolarization moves between a minimum and maximum value. It thus provides a buffer of signal-carrying molecules before the exchange occurs across the cell membrane's boundaries to the nerve cell.

The practical meaning we can derive from this is that a second compounding phase occurs, characterized by the outcome and equalization of biochemical processes and accumulation between control values with which the buffer is built up and allowed to pass through the cell membrane.

The cycle time of these processes is well known, such as the ATP-ADP cycle. This cycle is fundamental for the energy supply of a cell.



Figure 1. Energy is freed from ATP by removing one of the phosphate groups yielding ADP. ADP is then recharged into ATP via phosphorylation.

Although this representation has been greatly simplified here, it appears that with the construction of the vision system as planned, this compounding had to take place according to the frame rates of the eye. These frame rates are necessary for human consciousness to experience

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the physical world at an adjusted frequency of perception than at which the free electrical quants manifest themselves.

In this way, it can be determined how much time delay and compounding there is due to the processing in the various process steps to ultimately arrive at a representation of the received signals into an image of the object suitable for human perception.

The time delay of the hysteresis and equalization of the signals is in approximation, as shown in the sketch below.



The compounding of the manifestations of the free electrical quants of the photons is essentially built into the system from exogenous interference in the eye to its signal availability in the visual cortex. The high-frequency manifestation of the free electric quants of the photons is systemically compounded from 10^{-44} sec via 10^{-14} sec to the eye's frame rate of 20-50 per second.

With this observation, the conclusion that man takes care of the compounding of the information in his thinking to arrive at an image of the object is amended. The sensory system is already equipped for compounding the information of the tangible illusions.

Thinking has the challenge of understanding the meaning of the objects.

There is obviously more to observe than tangible illusions.

11. QUANTUM PHYSICS AND BRAIN TECHNOLOGY

It has now been established that the compounding of the manifestations that the free electric quant of photons exhibits through space is essentially built into the vision system from the eye to the visual cortex. The vision system gives humans an experience of time, shows the path of the free electric quants in frame rates of 20-60 per second, and has a short-term sensory memory function.

The high-frequent manifestation of the free electric quant of the photon is monistic. The entity's spatial position is adapted by the retarded magnetic compensation in an incremental step to the situation at the subsequent Planck time. In the eye, a free electric quant can interfere with an electron in the shell of an atom in a receptor, a cone, or a rod.

In our dual appreciation, we understood that the quant will continue to move step by step at the speed of light, each Planck time with 1 Planck length. Whenever a free electric quant with the proper frequency interferes with an electron in a receptor in the retina, it can bridge the energy gap with the gamma photon, followed by the accelerated oscillation of that electron. As a result, the weak signal from the free electric quant is amplified, by the release of the electron with its electric charge **1 E**. Ion molecules in a watery environment within the cell of the receptor capture the ejected electrons. After neutralization, these deionized molecules accumulate in batches and are released through the cell membrane into their associated nerve cell of the receptor. In this way, the input signals from all cones and rods are processed over many Planck steps and nerve cells to form a single image of the object. After passing through the nerve cell, this image is projected via the nerve cell's axions on the brain's visual cortex.

This description is established after incorporating the insights of The Dutch Paradigm into the phenomenological descriptions of these phenomena by scientists in this field.

From its atomic coherence, man's physical body is apparently capable of experiencing time in what he perceives as moving objects in his environment. His own physical body is part of this world. He is held back in his perception of what is to be seen up to a compounded framerate of 20-50 frames/sec and can absorb the images and their adaptations over time.

After the first iteration to the frequency of 10^{14} Hz, we see biochemical processing of the original photonic interference on the way to the visual cortex adds another significant compounding and retardation.

The biochemical processing shows a form of hysteresis when processing changing signals.



Actiepotential. (2023, June 17). In Wikipedia. https://nl.wikipedia.org/wiki/Actiepotentiaal

It is conceivable that hysteresis contributes to making changes visible over successive images. The brief afterimage we see when closing our eyes seems to point in this direction.

The conclusion is, therefore, plausible that sensory processing up to the visual cortex also provides an initial memory function.

At the same time, the entire physical system in man's body operates with free electric quants of gamma photons and gamma neutrinos in the electrons at the speed of light.

Remarkably, the human experience of time is based on the frame rate of only 20-60 images per second to observe such massive number of manifestations of these free electric quants.

> This consideration shows that the modeling of The Dutch Paradigm allows us to relate human vision and sensory memory to the monistic manifestations of the free electrical quants.

As a science, particle physics does not typically study the functioning of the human senses.

The reverse will undoubtedly apply.

When studying the sensory abilities of biochemistry and physiology, the insights from particle physics must be logically applicable. Nothing changes in the basic functioning of the monistic system.

Still, it is remarkable that a biochemical structure is incorporated into the vision system in which time as a parameter is incorporated.

Which particle physics insights and models are recognizable in the monistic world of the physical body?

What model is applied in chemistry and physiology to the atom?

Billiard ball model Plum pudding model Planetary model Bohr model Electron cloud model John Dalion Thomas Thomason Emest Rutherford Niels Bohr Erwin Schrödinger

Timeline of atomic models

Chemistry and biochemistry work with Bohr's atomic model to understand the formation of molecules. The electrons are present in electron shells around the nucleus, and the structure and layout of the nucleus of the atoms are according to the Periodic Table of the Elements.

The composition of the nucleus is considered necessary in (bio)chemistry based on the assumption in the regular paradigm that there is an isotropic interaction of the electrical charge of the protons in the nucleus and the electrons in the shells.

The many ideas and theories that led to quantum physics after Max Planck's discovery are focused on the structure and composition of the atomic nucleus. The electron is still postulated as a point particle. Knowledge of the composition of the nucleus of complex atoms is limited. The composition of the proton is being investigated in Geneva. The current atomic models give no reason - except for the Coulomb force - to assume interactions between the nucleus of an atom and the surrounding electrons.

The electron is also accepted as an elementary point particle in chemistry according to the Standard Model. The bonds between the atoms are via electrons in the outer shell.

The electron cloud model, according to Schrödinger, is less applicable to (bio)chemistry than the Bohr model. The suggested uncertainty about the location of the electrons is a complication that is not considered to have a determining impact in (bio)chemistry. In the Bohr model, the electrons as point particles do have properties assigned in the form of quantum numbers.

In The Dutch Paradigm, the electron is a construct of a gamma photon and a gamma neutrino. The Heisenberg uncertainty relation misinterprets the entity's location, making the cloud model irrelevant. The electrons and protons in the nucleus reflect mutual orbital behavior towards anisotropic exogenous and endogenous tuning.

From (bio)chemistry, an accurate picture is available of how humans can ultimately receive images of an object on the visual cortex through a series of molecular interactions.

In the previous chapter, I indicated how the processing of sensory information, and in particular vision, can logically be explained from quantum physics to the formation of images.

The assumptions I use for this book are based on my limited knowledge of the empirically derived facts of the human vision system. How the stimuli are processed into information for decision-making and action by the observer is often still unclear.

An example of the global insights into this is a video of an interview with Arnold B. Scheibel. Scheibel was the former director of the UCLA Brain Research. Institute.https://www.youtube.com/watch?v=UwXQSNcytTY.

What is striking about these global insights is that the basis and manner of the alleged processing to explain physically observable phenomena is still classically empirical. No explicit connection is made with quantum physics, even though the basis of quantum physics is already a hundred years old.

According to classical experiments, areas in the brain can be classified according to increased electrical activity and are linked to showing emotions, perceiving moving phenomena and assessing emotions, experiencing antipathy, and feelings of anxiety.

Consciousness, memory, thinking, decision-making, initiating and executing limb movements, there is a limited spatial notion of which part of the brain is involved.

Spatially, areas in the brain can be identified that show increased electrical activity for recognizable functions:



The brain is physically divided into two halves.

It is not known why this division into two halves would be functionally necessary. In some cases, people with only a single hemisphere of the brain could lead more or less everyday lives.

The two halves are known to do essentially the same thing, making the twofold mutually redundant.

In short, the insight is expressed as follows:

"When you take out half of the brain, you don't forget anything you've learned before, and you're still able to understand things perfectly well," says Dr. Freeman. Skills that reside on one side of the brain — math and language on the left — automatically shift to the other side."

Countless cases of people who can live and function reasonably generally with only a single hemisphere of the brain are known.

www.bbc.com/news/av/magazine-39117532

Surprisingly, the brain is divided in such a way into two almost identically operating halves. Explanations are given for differences in activity, such as in the case of the girl Jodie, who was operated on at the age of three to remove half of her brain. She regularly suffered from loss of function and could not sleep well. In any case, being able to live with only one half of the brain is an objective but misunderstood reality. Explanations are given that the brain itself can 'rewire' itself.

If we extend this further, we have two arms, two hands, two legs, a heart made up of two parts, two lungs, two kidneys, two ovaries, and two testicles.

Here, too, humans seem to have a redundant structure. Man is not unique in this; this structure of the physical body can also be recognized in many other mammals:



Birds such as the eagle and crow also have a division into two parts of the brain.

Not all organs have a dual structure, but that duality is physically present in several organs and functions and is not passive in redundancy. They may be duplicated but do not, in fact, function redundantly, and both parts participate in life functions. Remarkably, actual redundancy and interchangeability can also occur. Science cannot clearly explain the need for the brain's two hemispheres.

The experimental research mainly identifies locally increased electrical activity for the indicated functionality.

A quantum physics consideration, such as compounding the sequence of motion of free electric quants to achieve imaging, will be a new idea for the relevant branches of science.

Another idea is that in addition to redundancy, the duality may also have to do with human sensory processing and experience of its environment.

A possible line of thought will be discussed in some detail in subsequent chapters.

12. IMPACT OF A PERFECT IMPERFECTION

A perfect imperfection caused the Big Bang. The magnetic compensation of the entities involved was absent for 1 Planck time. It is not known why this interruption occurred. In the context of The Dutch Paradigm, this disruption has been postulated as an assumption.

Is it deliberately that I mention this as a disruption?

A disturbance of an at-rest system appears to be an unexpected intervention in a harmonic state. Disruption has a negative connotation and suggests that something is functioning poorly or not at all. With the same subjective, emotional assessment, this can also be seen as a desired course of development.

We don't know why this event, the Big Bang, happened.

Within The Dutch Paradigm, we speak of an imperfection without wanting to associate it with a specific emotional value.

The consequences of the imperfection were enormous. Gamma photons and gamma neutrinos were released. Both types of entities manifested with a free electric quant. Everything we physically perceive around us is formed from this.

This immediately created a causal another perfect imperfection. The starting frequencies of the gamma-photons and gamma-neutrinos could not be set to precisely the same value because the irrational factor π plays a role in the tuning. The squaring of the circle as 'imperfection'.

This perfect imperfection initiated subsequent significant consequences, as we can observe in the manifestations of the neutrino.

- * The neutrino experiences a reduction in the gamma frequency with approximately 10^{14} Hz and acquires herewith a slightly lower frequency than the gamma photon.
- * The neutrino experiences likely a reduction in propagation speed compared to the speed of light
- * The starting condition is left-handed chirality only

* This original chirality persists and is preserved in the naked condition over time because no timely change in rotation direction can take place

The release of a free electric quant necessarily causes a disturbance in the electromagnetic system of the related entity.

The harmonious perfect potential causality acting on the entity changes in character to kinetic causality. This causality can be modeled in a dual appreciation for the gamma photon as a sinusoid and the gamma neutrino as a limaçon. The entire electromagnetic system of which a free electric quant is a part, is released into physical space with the entity at the speed of light. This causality of the kinetic electromagnetic system acts endogenously and exogenously on a passing free electric or magnetic quant. This will adjust a passing quant in its spatial movement.



This interference with an entity's quantum 'fields' works similarly to Fleming's left and right-hand rules in the operation of electricity and magnetism.

A gamma photon and a gamma neutrino can interfere after the Big Bang, forming the construct electron. The free electric quant of a gamma photon

then crosses the 'quantum field' of the gamma photon and rotates by 90°. After the electron's formation, the neutrino's chirality in the electron changes due to the difference in frequency between the gamma photon and gamma neutrino. This causes the electron to oscillate every $\sim 10^{14}$ Hz and enables a spinor motion.

Due to the formation of the electron, the gamma photon manifests itself spatially asymmetrically and, therefore, shows the full electrical quality 'E' of the active electromagnetic system of its entity.

The impact of disrupting the electromagnetic system of the entities involved was enormous.

The energetically tiny imperfection by the free electric quant of a gamma photon causes the entire electromagnetic system of any entity to potentially manifest itself spatially from the electron.

Physically, these electromagnetic systems only take care of the reactive movements of the free electric quants in their spatial monistic behavior. This potential for movement in the event of interference is commonly called the 'fields' of any electromagnetic system.

With this compact description, it becomes clear once again how complex it is to translate the coherence of what can be understood in thinking in images into words. The concepts used are based on assumptions and conventions, often arising in isolation and independently without the ability for consultation within the field of science. Using a term can, therefore, conjure up an image in the reader's mind that may not correspond with what the writer intends to convey. This complication almost inevitably arises at this stage of compactly describing a paradigm shift.

Similar problems in the description are historically known. At the time, visual thinking about the spatiality of the Earth was challenging to express. How do you describe to your fellow man that the Earth is not flat but round? Then, it would be best first to realize that the Earth is flat and not spatially limited. Besides, there is no reference to the subject matter in the Bible, round or flat.

Viewed monistically, time has no assignable dimension in physical space. The now standard terminology to describe the sensory observable manifestations also had to be developed first by the dual-thinking observer. The dual-thinking human observer became a physical participant late in the universe's development. The observer endogenously adds time to his observations as an auxiliary line for thinking, a non-physical dimension, essentially virtual. A physical instrument such as the clock is a substitute to synchronize the virtual timeline between observers regarding measurements.

From a human perspective, we have had to rethink the concept of time. Albert Einstein made it clear more than 100 years ago that time is a variable depending on the speed and location of the observer and the observed object. Terms such as space-time and curved space were new and challenging to fit into the jargon.

From what has been described in The Dutch Paradigm, the conclusion again follows that time does not exist at the monistic level; only the NOW renews itself every Planck time. We experience this renewal in our dual treatment of perception as incremental successive. We attach values and dimensions to an increment that we translate from our observation position in 'place and time' into a Planck length and Planck time.

Along this line of thinking, within The Dutch Paradigm, the properties of the entities and constructs are recorded in behavior in place and time according to an inertial frame of reference that is appropriate for the consideration.

We experience images in which we suspect the spatial coherence of the observations of the manifestations of the entities according to time and place in a sequential causal relationship. This correlation can be processed both mathematically and numerically. We first take the entity's location as a position for the imaginary observer. The assumptions here are that the manifestations of the free electric quants of the entities move with **1 Planck length per 1 Planck time**.

In this approach, we can interpret constructs in our thinking, such as the electron and the dodecahedron and the neutrons and protons in their compositions. This interpretation is a transition area in which we distinguish recognizable images in our human thinking about large numbers of **NOW** iterations. That we can do this is a characteristic of the now-living dual human observer. Man possesses this characteristic based on the compounding of the information he obtains from the physical sensory perception of his immediate environment. We perceive the environment at frame rates of **20 - 60 frames per second**.

In our thinking, we can increase the frame rates to the Planck scale, and thus, we arrive at the recognition of the formation of dodecahedrons separately and in coupled pairs for the neutron and the proton.

The question then arises as to how we should view the frame rates of **20-60 per second** compared to the Planck succession of the staggering **10⁴⁴** iterations per second.

The oscillations with the subsequent spinor rotation of electrons in the shells of the atoms represent another aspect of compounding observations.

The oscillations are in the 10^{14} Hz range and reflect the effect of the inserted energy of free electric quants of 10^{14} Hz.

It is remarkable that in this compounding, the human observer ultimately creates an additional color experience due to the variation in frequency to the core structure.

Photons could be energetically depleted up to this frequency band by transferring energy $h\Delta f$ from the gamma starting frequency 10^{24} Hz to 10^{14} Hz. This energy transfer is possible via the impulse effect of gamma photons on nuclei. As previously indicated, this energy transfer is (one of) the source(s) we can recognize as dark energy.

We know that photons with a high frequency, such as in the gamma range, can cause a nucleus to decay by impulse into nuclear fission. As a naked nucleus, that is not a problem. Such a nucleus is not yet atomic.

This is different for the objects that have already become atomic. The atomic structure must be sustained. Therefore, the subsequent interferences must be with photons that can be captured in the electron shells and cannot harm the nucleus.

This process of heating the nuclei of the atoms of the objects can be referred to as thermal inertia. With continued heating up to a heat equilibrium, more and more photons are released from the core, which had a decreasing possibility of transferring energy and, therefore, show frequencies above infrared and even further to yellow. The atoms in the object start glowing.

At last, saturation occurs in the ability of the nuclei to absorb and release photons. Afterglow shows thermal inertia as well. This afterglow is again a hysteresis phenomenon. The object makes itself visible up to the nucleus. After all, the glowing phenomenon and, therefore, the afterglow comes from the entire object. All atoms and their nuclei are involved.

When very many photons $< 10^{14}$ Hz are captured, the nuclei of the atoms in an object are heated.

The inertia of the working through of energetic mutations in speed and heating arises from the monistic settlement of the equalization.



This is sometimes called a bucket process.

Photons with a frequency in the visible range reflect instantaneously upon interference with an electron in the shell. This is in deviation from the interference with low-energy photons under 10^{14} Hz. This phenomenon of instant reflection can be interpreted as a deviation from the usual outcome of an interference of an electron with low-energy photons. In the visible frequency band, it is a perfect imperfection. This lighting creates a sharp visibility of the contours of a solid object, facilitated by the spinor functionality of electrons in the outer shell.

The frequencies for meaningfully observing the 'mass' inertias lie within the frame rates of human perception. You can then also may say:

> We combine the effects of instantaneous reflection by spinor action with the slow adjustment of objects in acceleration and heating by hysteresis.

Jos Verstraten

Our focus on detecting coherence in the observations is sharp. We are interested in changes in the visual range. By irradiating those objects with photons of 10^{14} Hz, we see the sharp contours of the outer layer of the objects. The objects provide the image of a quasi-composite object that can be in motion or set in motion.

The frame rates for our sensory perceptions match the inertia in processing the movements of objects, both due to speeds and heat phenomena.

Objects outside us, but also from our own physical body.

13. SIMPLIFICATION OF THE CALCULATION MODELS

Calculation models play an essential role in scientific practice. A computational model is, most of the time, a simplified representation of reality. It is used to apply experimentally obtained data to validate the structural behavior of a physical object based on a presupposed theory. Subsequently, to make predictions from such a calculation model about the expected behavior under varying conditions.

The Dutch Paradigm models and describes how electron, neutron, and proton constructs emerged. These models describe observed manifestations of a monistic physical world. The calculation models that belong hereto are mathematically available from an appropriate inertial frame of reference.

However, as soon as we start modeling, we must realize that we are adding the experience of time to thinking. We already consider the physical world from the observer's perspective, a perspective that is derived from his dual understanding of that monistic physical world.

We experience that the naked free electric quant of a gamma-photon and a gamma-neutrino in spatial freedom performs a displacement corresponding to 1 Planck length after each 1 Planck time. In combination, as an observer, we call this the speed of light. This speed is absolute and arises from the conditions we refer to as the Big Bang.

The determination of these values, therefore, incorporates that the perceiving human being can move his thinking into an appropriate inertial frame of reference to the zero position of an entity relative to its free electric quant. We can only do this exercise in our thinking because our sensory perception of the behavior of the manifestations of an entity happens from a mutual relative position and a relative speed. In physical terms, we lack knowledge of the zero position of the Big Bang, we have no absolute position of equilibrium. Nevertheless, we are free to make assumptions, including choosing an inertial frame of reference, but it is still relative to an absolute position of equilibrium.

The values of the velocities and position are measured in the SI system as the system in which we calibrate locally, on Earth, the zero position, and the measured values to standard units to harmonize the numerical evaluation of the observation.

Wikipedia:

The International System of Units (French: Système International d'unités) or SI system is the metric system of uniform international standard units for measuring, for example, distance, mass, speed, and temperature. It was introduced on October 11, 1960 and is managed by the Bureau International des poids et mesures in Sèvres (France). The Conférence Générale des Poids et Mesures (CGPM) recommends SI in all languages as an abbreviation for this system of units.

At the beginning of the physical universe, under the assumption of The Dutch Paradigm, the displacement of the entities, through mutual Coulomb repulsion, proceeded radially from the source. This source is assumed to represent the absolute position of equilibrium. After the return of the magnetic compensation, this rule remains valid concerning the source, but the displacement vector becomes dependent on the interferences that each free electric quant may encounter during its passage through the universe. From then on, the universe will be called physical because sensory spatial observations will eventually be possible precisely due to the presence of free electric quants. These electric quants are to be seen as points with concentrated energy. Electrons are formed due to interference, and the location of asymmetric "charge" strongly determines further interference to maintain the allowable maximum displacement within limits governed by the speed of light. In the electrons, these points of concentrated energy can, by mutual interference, show a spatially extended presence.

A mismatch then arises between the frequency of the free electric quant of the gamma photon contained in the electron and that of the gamma neutrino. Both entities' manifestations are at right angles to each other in the direction of movement, and compensatory actions arise within the object electron. These compensatory actions are imperative to ensure that no quant within the electron is breaching the speed of light.

In the regular paradigm, these actions - gravitational attraction and inertia - are retributed to the properties of the 'mass' of an electron. Then, twelve electrons come to form the object dodecahedron. Due to the construction and position of the electrons, the imaginary dodecahedron object has a resting kinetic speed of 0 C relative to the source of the Big Bang. In a

subsequent stage, the neutron and proton are formed in a composition of double dodecahedrons.

However, it remains valid for each free electrical quant that with each subsequent NOW, it moves the step size of 1 Planck length over 1 Planck time. The free electric quants in the electron are still active at the speed of light, though in a combined structure. The free electric quants of photons captured in our eyes also travel in space at the speed of light. All this while we humans have an almost zero speed relative to the source of the Big Bang.

Within the objects, all possible compensatory movements of the free electric quants are necessary on all electrons in the dodecahedrons in the core and the electron shells to always comply with the rule of 1 Planck length in displacement per 1 Planck time. Monistically, this works deterministically per each free electrical quant. I have previously elucidated that in the objects we perceive as dual humans, the restraining effects of gravity and the hysteresis of mass inertia also operate as a process of equalization on the free electrical quant of each entity.

Humans are cosmically connected to the Earth, but we can reasonably state what surrounds and moves around us. The Earth's speed through space is estimated at 600,000 m/second, a fraction of the speed of light of 299,792,458 m/s.

At the level of a free electric quant, we can mathematically formulate the development of the change in position and vector between two Planck times and eventual modifications in energy contained by Hamiltonian and Lagrangian formalisms. It becomes much more challenging to determine in detail the influence of the complex movements of all those interconnected free electrical quants in an object.

The movement pattern over many image frames becomes exceptionally complex at the level of the free electrical quants in the object. A resulting vector is established deterministically with which a (part) object moves spatially in conjunction.

We cannot escape the need to simplify the calculation models.

As tools to make statements to understand the spatial behavior of objects, we work mathematically with simplifications such as assigning fictitious points of application of forces, such as centers of gravity. Another tool is to work with orders of magnitude to prioritize the most critical influences atom; an enormous amount of deterministically determined activity occurs in an atomic nucleus and shells and, therefore, with all entities of an atom. Still, we usually do not go so far as to include that in a calculation. You then work with the idea of Dalton's model, a massive spherical atom.



Ultimately, all influences on every entity that must follow its free electrical quant in a construct are expressed in a movement pattern of the sensory observable object. That pattern is still based on monistically determined influences, but these influences are only mathematically traceable to a limited extent for us as observers. I say the movement pattern of the free electric quants because that is what we, as humans, eventually perceive in compounded images.

This simplification of the computational models forms the basis of classical physics.

One can, therefore, say that every free electric quant gives rise to the display of a complex pattern of vibrations on the central axis of motion, linear or circular. The entities adapt to the new situation via the electric quant with every NOW jump, and that continues.

The entities are spatially following in a delay of 1 Planck time. They have free electric quants but are not physically recognizable in space by humans.
So, outside our physical sight, there is a realignment of entities connected to their free quants.

Every free electric quant exhibits a complex pattern of vibrations in its central axis of movement unhindered. That pattern is a complex threedimensional composite whole of always recognizable simple trigonometric shapes. A three-dimensional Fourier analysis is, in principle, possible and can be projected in the fourth dimension, time.

I will not consider what is done with this information here. However, each entity can consistently and inextinguishably manifest itself in a threedimensional waveform with its proprietary electromagnetic system.

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14. FUNCTIONALITY OF THE NEUTRINO

With the Big Bang, gamma-neutrino entities were also released into space, each with a free electric quant as manifestation. The electromagnetic system bound to each neutrino entity changed from potential to kinetic. The electromagnetic system follows the free electric quantity in a polar development, in line with Pascal's limaçon.

The free electric quant of a gamma neutrino has a slightly lower frequency than the gamma photon. The necessary reduction in the energetic value of the free electric quant has been moved to a subsequent but integral part of the quant and identified as the free magnetic quant.

After the Big Bang, the gamma neutrinos, with their free electric quant, show a preference for left-handed chirality contrary to the expectation for symmetric behavior. This one-sided preference has been established for naked neutrinos. It is not clear in the prevailing paradigm why this preference exists.

The Dutch Paradigm previously discussed that if the naked neutrinos had been released in the symmetric distribution of left- and right-handed chirality during the Big Bang, massive instantaneous annihilation would possibly occur due to mutual interference. We do not see this annihilation under terrestrial conditions, even though it is known that neutrinos occasionally show right-handed chirality, for example after passing through the Earth.

Right-handed chirality neutrinos are apparently less stable in terrestrial conditions and decay to left-handed chirality.

A gamma neutrino can change the direction of rotation if it is formed into an electron together with a gamma photon. The Dutch Paradigm indicates that in the (naked) electron, the direction of rotation of the gamma neutrino changes during the system-determined oscillation.

However, no neutrino annihilation occurs.

The Dutch Paradigm states that a symmetric distribution of left- and righthanded chirality during the Big Bang would have induced a massive instantaneous annihilation. We do not see annihilation under terrestrial conditions as well, even though it is known that neutrinos occasionally show right-handed chirality, for example, after passing through the Earth.

Right-handed chirality neutrinos are less stable in terrestrial conditions and change back to left-handed chirality.

A gamma neutrino can change the direction of rotation if formed into an electron with a gamma photon. The Dutch Paradigm indicates that in the electron, the gamma neutrino's rotation direction changes during the system-determined oscillation.

However, no neutrino annihilation occurs.

Summarizing :

- the gamma neutrino will show a free magnetic quant with the same energetic content as the free electric quant was withheld to avoid breaching the speed of light.
- The electron oscillates in a bandwidth of around 10^{14} Hz.
- In an electron, oscillation reverses the direction of rotation of the gamma neutrino without annihilation of the neutrino.

These remarkable properties of the neutrino will be discussed in this and subsequent chapters.

For further explanation:

There is an oscillation bandwidth of 'approximately' 10¹⁴ Hz. The bandwidth is partly characterized by the reflection color, from infrared to ultraviolet. Each element from the Periodic System has a specific and fixed value for the oscillation frequency and shows its color in reflection.



The preference for a specific direction of rotation can also be understood - in an adapted way - in modeling the neutron and proton.



The neutron and the proton have two gamma photons active on the bond surface.

- In the **neutron**, these gamma photons are in vectorial opposition but have the same direction of rotation. No electron is formed on the bonding surface.
- With the **proton**, the situation is essentially different. The two gamma photons are now in the same vectorial direction but are in opposition in the rotational direction. An electron is formed.

According to the modeling of The Dutch Paradigm, in the proton bond, the electron changes the direction of rotation and gamma photon with each oscillation so that both constituent components have the same order of rotation. The controlled alternation from left-handed to right-handed chirality is possible without annihilating the gamma neutrino.

This mutually identical direction of rotation produces alternating left- and right-handed electrons in the proton bond.

The completion of the reversal process requires further consideration.

Cautionary note:

Such a closer look entails the risk that hidden assumptions have been incorporated and/or circumstances have been ignored that may have contributed to the original formation of the electrons. The question arises whether the direction of rotation of neutrinos played a role in the construction of the dodecahedrons.

In vectorial opposition, the two gamma photons are already present in the neutron bond. This is commonly referred to as the binding of the neutron with the **weak nuclear force**. The situation of two gamma photons in vectorial opposition in the neutron bond makes a neutron sensitive to interference. With a slight disturbance in one of the two dodecahedrons, **'B-decay'** will occur into a proton and form the configuration of the proton bond. The proton is exceptionally stable and almost unbreakable. In the proton bond, the gamma neutrino will change direction and gamma photon with each oscillation and form into an electron. This formation into an electron with a co-rotating spin characteristic is a logical consequence of the preference of the naked neutrino for an identical direction of rotation to the gamma photon.

All electrons of the two dodecahedrons oscillate simultaneously. Except for the proton bond, all electrons on the faces of the dodecahedrons have only one gamma photon, which cannot change its direction of rotation.

One dodecahedron then shows co-rotating electrons and the other counterrotating electrons, alternating with each oscillation. In composition, the proton resulting in regular terms exogenously offers only $\frac{1}{2}$ spin of the proton bond.

The preference for 'left-handed chirality' of the naked neutrino has functional significance for the properties of both the naked neutrino and the constructs electron and proton, but what are these?

What is the source of this phenomenon of rotational preference, referred to as left-handed chirality?

We refer to the beginning, immediately after the Big Bang, before electrons were formed. It is conceivable that the property at the start of the physical universe for the neutrino was potentially single in rotation, referred to by us as observers as only 'left-handed.' Such a singular property at the start is also conceivable and probable for the photon.

For the naked gamma photon, we cannot measure this property back to an initial situation because the velocity vector of the free electric quant of the photon can show both positive and negative values. This is different for the neutrino. I have explained this in the chapter on the properties of the neutrino. The direction of rotation that the limaçon of the electromagnetic system has at the start of physical space is retained for the naked neutrino. The free electric quant of the gamma neutrino has already passed through the zero value of the electromagnetic system of the neutrino entity before it could change in the direction of rotation.

Only when interference occurs with another exogenous electromagnetic manifestation can the direction of rotation change from left- to right-handed chirality.

In such an exogenous magnetic manifestation, the transition from lefthanded to right-handed chirality (and vice versa) can proceed in perfect Planck steps as follows:

1 In the initial situation, the naked gamma neutrino with the free electric quant is with 1 Planck time leading within the endogenous electromagnetic system of its neutrino.

- 2 Due to an appropriate exogenous interference, the electromagnetic system of the neutrino is energetically appropriately supplemented at the zero crossing of the limaçon, and the free electric quant loses its lead of 1 Planck time over the electromagnetic system of its gamma neutrino.
- 3 A **potential switch** to right-handed chirality may occur and
- 4 subsequently and through further interference, a lead of 1 Planck length can be installed again for the gamma neutrino, but now in right-handed chirality.

Point 3 refers to a **potential switch** to right-handed chirality.

The potential switch to annihilation arises if the interference during the passage through the null is perfect. The manifestation of the free electric quant would then disappear from the physical universe. The gamma neutrino would then lose its free electric quant, enter its pre-Big Bang mode, fall back to its potential state, and disappear from physical space.

If the exogenous interference of the free electric quant of the gamma neutrino is perfect, the gamma neutrino would instantly become potential again.

The gamma neutrino would then lose its free electric quant, enter its pre-Big Bang mode, fall back to its potential state, and disappear from physical space. Yet, this annihilation does not occur because the free magnetic quant – commonly identified as the small 'mass' component of the gamma neutrino – must also be compensated. I have previously referred to and treated this 'mass' component as the phenomenon of the creation of a first free magnetic quant in the gamma neutrino.

The exogenous interference that causes the neutrino to change in the direction of rotation encounters a perfect imperfection here, which prevents the neutrino from becoming potential.

There is the potential for an appropriate interference for changing the direction of rotation of neutrino in the electron is provided, but there is no simultaneous compensation of the free magnetic quant. The gamma neutrino in the construct electron does not enter its pre-Big Bang potential state and can change directions without annihilation.

Reminder:

At the same frequency and speed, the Planck steps of the gamma photon and gamma neutrino cannot be equal due to the squaring of the circle. During the Big Bang, a free magnetic quant was created in the electromagnetic system of the gamma neutrino, even without exogenous interference. This inevitable mismatch is also a perfect imperfection. Without this perfect imperfection, the electron would immediately decay into a gamma photon during oscillation.

If two electrons with different rotational directions interfere with each other, annihilation can occur.

Note:



this phenomenon was probably observed at the LEP collider in Geneva:

Positronannihilatie. (2020, May 20). In Wikipedia. https://nl.wikipedia.org/wiki/Positronannihilatie

No neutrinos were released during these experiments in which an electron and a positron collided. The free electric and free magnetic quants of the two neutrinos in the electrons are annihilated by mutual interference.

In a single electron, to change the direction of rotation, only the electrical interference of a gamma photon is available to the neutrino, and the free magnetic quant of the gamma neutrino remains unaffected. No annihilation occurs.

A unique phenomenon is created by exchanging gamma photons through the neutrino in the proton bond. The proton bond has two gamma photons in circulation at the junction of the two dodecahedrons. Only one of the two photons is bound to the neutrino, and when the chirality changes, the neutrino switches to the other gamma-photon.

The two gamma photons represent a differential value between the previous and the new oscillation.

Here, in the proton bond two worlds are touching each other, the effect of two compounded situations exposed to the very same neutrino.

The proton has the built-in functionality of compounding at the oscillation frequency of 10^{14} Hz.

The following chapters will consider this further.

15. DOES THE NEUTRINO STILL HAVE HIDDEN FUNCTIONALITY?

The Dutch Paradigm identifies the gamma neutrino as crucial in its interference with a gamma photon to form the construct electron. The electron is central in the further modelling of the neutron and proton.



This is in stark contrast with the findings per the prevailing paradigm. The neutrino is labeled in the current scientific view as an apparent inert elementary particle. It is unclear whether the neutrino is even capable of interfering with other particles. The neutrino is not part of the model for the proton.

The prevailing schematic models for the proton are complex:



Brookhaven National Laboratory, nov 2022



CERN SCHEMATIC ARTISITIC

It, therefore, seems appropriate to repeat, for didactic reasons, the logic of modeling by The Dutch Paradigm up to the proton and the proton bond for the 'dead' matter with illustration of images and animations. That is what this chapter is intended for. No substantive additions have been incorporated. Animations are available on the website of The Dutch Paradigm.org.

The creation of neutrinos is associated with decay processes:

Wikipedia:

Neutrinos are created by various radioactive decays; the following list is not exhaustive, but includes some of those processes:

- beta decay of atomic nuclei or hadrons
- natural nuclear reactions such as those that take place in the core of a star
- artificial nuclear reactions in nuclear reactors, nuclear bombs, particle accelerators or during a supernova
- during the spin-down of a neutron star
- when cosmic rays or accelerated particle beams strike atoms

Naked neutrinos exhibit mainly but not exclusively left-handed chirality.

The Dutch Paradigm states that the neutrinos were released during the Big Bang and in left-handed chirality mode. Right-handed chirality is possible in naked form but is exceptional.



The neutrinos show a small 'mass' manifestation. According to The Dutch Paradigm's logic, the neutrino's free electric quant also has a lower frequency and energy content **hf**.

This is explained in the diagram below:



PHYSICAL SPACE

The gamma neutrinos and gamma photons can assemble the construct electron through interference.

Gamma photon and gamma neutrino interfering animation:



According to the insights of The Dutch Paradigm, the electron is not an elementary particle.



Characteristically, due to the difference in frequency between the gamma photon and the gamma neutrino, the electron *endogenously* oscillates in a bandwidth of around 10^{14} Hz.



This bandwidth is the energy equivalent of the magnetic quant of the gamma neutrino caused by the squaring of the circle.

In the electron, the neutrino alternates in left- and right-handed chirality through the oscillation.



The spinor functionality allows the electron to move toward a state of mutual attraction.



The electron then appears to play the central role in the further development of the dodecahedron construct:





In the dodecahedron, the twelve electrons are spatially fixed.

In the configuration of the dodecahedron, the electrons exhibit synchronous oscillation but cannot perform spinor rotation due to their spatially mutually fixed position.



Then, under pressure due to the spatial limitation, the neutron is formed as a double dodecahedron.



Two neutrinos with the same rotation direction cannot spatially occupy the same position. Under earthly circumstances, we identify this as the Pauli Exclusion Principle. It forms the basis of experiencing the tangibility of the objects. It is remarkable here that during the formation of the neutron, so much pressure is exerted on the bonding surface of the two dodecahedrons that one of the two neutrinos is ejected.

Two gamma photons with oppositely directed vectors are active on the resulting **neutron bond**.

After the formation of the neutrons, β -decay can occur according to the scheme below:



The proton is formed with the **proton bond** on the bonding surface of the two dodecahedrons.



In the proton bond between the two dodecahedrons are two gamma photons with vectors in the same direction but with opposite rotation. With

each oscillation, the gamma neutrino in the proton bond will form an electron with the gamma photon in the same direction of rotation.

On all other surfaces of the dodecahedrons, the neutrino also switches from left- to right-handed chirality. However, only one gamma photon with a fixed direction of rotation is available for the gamma neutrino to form an electron.

The two dodecahedrons of the proton go through their oscillation cycle synchronously but differ in their mode of operation, as illustrated in the figure above.

This connects with the previous chapter to investigate an eventual additional meaning of this configuration, specifically of the proton bond.

In previous chapters, some unique properties of the neutrino were mentioned.

In subsequent chapters, it will be discussed that the gamma neutrino in the proton bond might play a pivotal role in physically allowing living creatures to act in the monistic world.

16. THE PROTON BOND AND ITS BEHAVIOR IN TIME

It has previously been established that the proton bond is unique because the gamma neutrino present in that area has two gamma photons in the proton bond available to construct the local electron. This characteristic arises after the β -decay of a neutron.

Protons were formed in physical space, each containing 24-1 electrons. The proton bond is an electron with a bound gamma photon and a free, unbound gamma photon active.



The neutrino interferes alternately with one of the two counter-rotating gamma photons in the proton bond. The lower frequency of the gamma neutrino is then gradually overtaken by the magnetic component of the gamma photon. This continues until the passage of the gamma neutrino through the zero occurs, and oscillation follows.

This change-over of the gamma neutrino occurs from the magnetic compensation of the gamma photon of the electron.

After the change-over of chirality, the gamma-neutrino will interfere with the free gamma photon of the electron.

The neutrino underwent a reduction in frequency immediately after the Big Bang. The gamma photon in the electron will compensate for this reduction by overtaking the gamma neutrino.

> We must realize that when the neutrino transitions from lefthanded to right-handed, a cause-and-effect equation is necessary via an iterative process over several Planck times.

The energy of the free electric quant of the gamma neutrino will be reduced by the additional magnetic compensation of the gamma photon to 0. Subsequently, oscillation occurs. The free magnetic quant of the gamma neutrino is nevertheless still active, and only after another Planck time does the situation arise of setting the right-handed chirality and passage of the free magnetic quant of the left-handed chirality by the zero value followed by setting the free magnetic quant associated with the righthanded chirality in the next iteration. The free electric quant of the gamma neutrino is then again out of step with the electromagnetic system of the gamma photon, now only in the mode of right-handed chirality. In the next period of Planck times, an analogous process follows, but now the magnetic compensation of the right-handed gamma neutrino is overtaken clockwise by a gamma photon.



In other words, the lag of the left-handed chirality that occurred at the Big Bang is first compensated in causal and consequential steps and then brought back into a lagging situation in the following iterations, but then in right-handed chirality. The transition from left- to right-handed requires two free magnetic quants. When discussing the properties of neutrinos, it has been established that a passage of neutrinos through the Earth's magnetic field can also lead to the adoption of right-handed chirality. This also requires a stay in a strongly magnetized environment for three Planck times.

The question can then be asked: how does the annihilation of a left- and right-handed neutrino proceed as found in the LEP experiments?

The physical dissolution of the manifestations of the quants of two gamma neutrinos - left- and right-handed - is indeed possible and can be explained using the results of the LEP collider.

Fatal electron-positron collisions were generated and achieved in the LEP experiments. As a result of this, only two gamma photons were physically released, according to the previously shown sketch below:



At the time, no two gamma neutrinos were detected during the collision, which means that the two gamma neutrinos - left- and right-handed - had indeed mutually annihilated each other. These gamma neutrinos restored each other during the collision to the situation before the Big Bang. The electromagnetic systems were then only potentially effective. All energy from the electron and "positron" is transferred to the two gamma photons during the collision.

This is shown in the diagram below:



The situation of the LEP collision is not comparable to the oscillation in the proton bond.

In the proton bond, there is only one active gamma neutrino. Therefore, when this neutrino passes through the center of the limaçon, that gamma neutrino cannot return to its pre-Big Bang state. It is also noticeable for the proton bond that the limaçon needs 4π , two revolutions to complete its cycle.



At the passing of the center, the free electric quant of the single gamma neutrino comes under interference with the gamma photon that is appropriate to its change in chirality. This gamma photon does meet the magnetic manifestation of the gamma photon that allows the gamma neutrino to change the direction of rotation.

The electron in the proton bond alternates in the direction of rotation without the phenomena of hysteresis or spinor rotation. The gamma photon and gamma neutrino will always have the same rotation order, alternating per oscillation from left to right-handed and vice versa.

Another phenomenon can be derived from this behavior of the proton bond: each gamma photon records only half of the adjustments of the electron. The records instituted in each of the two gamma photons are separated by intermittent intervals of 1 Planck time.

> At the moment of the subsequent oscillation, information is available and conserved in the proton bond for two different compounded moments in time.

The behavior of the electron in the proton bond differs from an electron orbiting the nucleus in two ways:

- 1. The proton bond has a short memory function
- 2. The electron in the proton bond does not perform a spinor

The coordination between the proton bond and the orbital electron has already been discussed in the chapter 'Information exchange within the atom' in the first book of The Dutch Paradigm. This alignment is possible because the orbital electron performs a spinor with its anisotropic electrical manifestation. Thus, it remains in the same orientation with the electron of the proton bond with the varying occupation with a gamma photon.

17. THE PROTON BOND IS AT THE BRINK OF LIFE

The previous chapter established the following considerations:

There is another phenomenon that can be derived from this behavior of the proton bond: each gamma photon records only half of the adjustments of the electron. The records instituted in each of the two gamma photons are separated by intermittent intervals of 1 Planck time.

At the moment of the subsequent oscillation, information is available and conserved in the proton bond for two different compounded moments in time.

The behavior of the electron in the proton bond differs from an electron orbiting the nucleus in two ways:

- 1. The proton bond has a memory function
- 2. The electron in the proton bond does not perform a spinor

Once again, it is found that monistic configurations give rise to rather extraordinary phenomena having a dual significance.

But what meaning can we derive from this?

It turns out that in the proton bond, time-related phenomena are unmistakably recognizable in the structure. The electron in the proton bond interferes in a periodic alternation with one of the two gamma photons, and herewith events in 'time' are conserved. At any time, two NOW events are recorded in the proton bond.

The question arises as to what, in the experience of time between the oscillations of the electron in the proton bond, shows itself to us as a thinking observer.



The monistic outcome itself is still deterministic, and what we notice here - in the modeling - is not chaotic. What is to be seen is a further step in perfection. Perfection, in turn, is instigated through apparently a perfect imperfection.

Chapter 2. Physical manifestations in dual perspective states:

In the treatment of the released free electric quants, we are not able to interpret properties as indicated above relative to the concept of life as a property of the physical manifestation of the entities. This monistic world of free electric quants, released by the Big Bang, has developed itself deterministically into the atomic state.

The quants of the entities manifest themselves therein after each Planck time with a displacement of 1 Planck length. So far, the development from The Dutch Paradigm can be explained logically in our thinking. This physical world can develop further into planets, stars, molecules, and crystals.

Ultimately, our physical body was also created in space. The basis from which this physical body is built is still the monistic world of the manifestations of the free electrical quants of entities. Our physical body also consists of the monistic constructs of electrons, protons, and neutrons. The question arises: are physical bodies also 'constructed' from tangible illusions?

What then lives in the 'organized beings' that, within the physical boundaries of a body, ensure that these organized beings want and can maintain their existence in their constructs?

Besides, the life of an organized being is finite, and there follows death and deterioration into dead matter. A deadly substance that still consists of electrons, protons, and neutrons.

Much biological research has been done into this, and theories have been drawn on how the first living matter arose from "dead" matter. Also, we see that the body dies and yet continues to exist on a monistic level, but as "dead" matter. Only it can no longer maintain itself as a living being.

A tangible illusion that decays into the material from which it is made up.

The fact that it can now be established that there are two-time experiences, two NOW moments, available in the proton bond. This raises the question:

Which of the two gamma photons carries the cause and which the effect?

And that, in turn, creates the chicken-egg problem. We cannot determine where causality comes from. Where is its beginning? You can proceed towards this normatively by asking where to start, with the chicken or the egg. You can also close the problem from a human perspective and ask: 'Which measure or intervention is desired?' You will then get a practical application. It then becomes clear that humans did not foresee this specific situation at the proton and, beyond doubt, did not introduce it.

We have to remind ourselves that the life of an organized being is finite. Ultimately, death follows and deterioration into dead matter. A deadly substance that still consists of electrons, protons, and neutrons.

Much biological research has been done into this, and theories have been drawn on how the first living matter arose from 'dead' matter. Also, we

see that the body dies and yet continues to exist on a monistic level, but as 'dead' matter. Only it can no longer maintain itself as a living being.

A tangible illusion that decays into the substance from which it is made up.

We can safely assume we have 'hatched' and become participants in the physical monistic world.

As human participants, we can - at a modest scale - change the ordering of the monistic world in which we live as an expression of our will. We impose those changes on the objects at the level we observe and study. We can change these objects in shape, size, and behavior.

Those changes 'as an expression of our will' must be introduced by impacting the monistic phenomena up to the level from which they are constructed as a tangible illusion. This input is ultimately processed within the object to the level at which human intervention is harmless, at least in the long run. We rearrange the illusions but not the physical origins. We try to change reality to the point of physical monistic manifestations as well, for instance, when we use the Large Hadron Collider in Geneva to enforce our will to split protons. We can reorder according to what we strive for. Still, the physical monistic manifestations rebound this attack on their existence, especially at the proton level. The same goes for the objects. We can create and change them, but time readjusts the energetically logical state of the object: equalizing by nature.

And that's not what we made of it. We made the objects artificial, which is not a natural state of affairs.

Of course, these considerations only provide more incentive to investigate how this can happen. What mistakes in thinking are we making?

How does the proton bond work in the bigger picture?

We can try to explore this question further through intuition, reverse engineering, and a dose of common sense—the latter by using Ockham's razor.

Wikipedia:

In philosophy, Ockham's razor is the problem-solving principle that recommends searching for explanations constructed with the smallest possible set of elements. It is also known as the principle of parsimony or the law of parsimony. Attributed to William of Ockham, a 14th-century English philosopher and theologian, it is frequently cited as Entia non sunt multiplicanda praeter necessitatem, which translates as "Entities must not be multiplied beyond necessity.

The simplest explanation is usually the best one.

If we then look at the situation at the level of the proton bond, we see that the two gamma photons reflect two different **NOW** moments. The time difference is - again - also determined here by the imperfections created or introduced by the squaring of the circle. The neutrino shows its impact on the monistic level.

First of all, we find a passive opportunity to experience the world around us:

1. The proton allows the observer to experience a compounding of the intervening events through a comparison between the states of being of the two gamma photons.

But there is also an active variant:

2. The proton allows switching cause and effect and for one of the two photons to absorb the desired new situation in time.

How this is made possible in the structure of the proton bond - exchanging the reflection of cause and effect - must then become the subject of investigative thinking.

Here, we will again find the exogenous and endogenous interaction in interferences in the monistic world.

18. WHAT IS THE FUNCTION OF THE PROTON?

At first sight, this seems to be a rhetoric question. Nevertheless, there is not a crystal clear answer to this question.

In a way the proton is the successor of the philosophical reasoning that was linked to the atom.

Wikipedia:

The word atom is derived from the ancient Greek word atomos which means "uncuttable". The basic idea that matter is made up of tiny indivisible particles is an old idea that appeared in many ancient cultures. In essence this was a philosophical reasoning, well accepted in many cultures.

In the early 19th century John Dalton noticed that chemical elements combine with each other by discrete units in weight and he decided to use the world 'atom to refer to these units. He thought these were the fundamental units of matter as was reasoned through the years. About a century later it was discovered that Dalton's atoms are not actually indivisible, but the term stuck.

But what is 'uncuttable' in practical terms?

That is a challenging technical question. Through times the methods to destruct matter in even tinier particles became more sophisticated.

So, new 'cutting' techniques revealed new ideas of the atom:





Dalton proposes the indivisible unit of an element is the atom.

1904 "Plum Pudding" Model

Thomson discovers electrons, believed to reside within a sphere of uniform positive charge (the plum pudding model).



Ernest Rutherford introduced the name proton as the nucleus of hydrogen. It was seen as the new candidate for the uncuttable particle. But even so, we now assume that also the proton is a composed construct and consists of other elementary particles.

New cutting methods were applied with the Large Hadron Collider as the sharpest knife so far.



The Large Hadron Collider (AFP/Getty)

CERN, the European Organization for Nuclear Research, has set in motion plans to build a new 100-kilometer circular supercollider.

The Large Hadron Collider, by comparison, is 27 kilometers long.

It is currently being upgraded, and expected to restart again in May 2021 until 2024, before starting its final run in 2027.



Landua, Fabienne - https://cds.cern.ch/record/2813716?ln=en

The focus of CERN is still on attempt to cut the proton into its constituents.


Whatever the results of this scientific effort - of what is called Big Science - will be, the Large Hadron Collider still will not be able to focus on the narrative that The Dutch Paradigm puts on the agenda:

What is the function of the proton?

Wikipedia as an accepted source for the basics, defines this as follows:

Wikipedia:

One or more protons are present in the nucleus of every atom. They provide the attractive electrostatic central force that binds the atomic electrons. The number of protons in the nucleus is the defining property of an element, and is referred to as the atomic number.

The proton is attributed a very modest role in this description. It is assumed to be a 'packaging' that holds the constituent parts together. It is somewhat comparable to what Henry Poincaré had in mind at the time with his Poincaré force.

Based on the model of the proton as per The Dutch Paradigm, the results of the collision experiments will not reveal other information than the interferences of the free electric and magnetic manifestations of photons and neutrinos entities exhibit.

The proton has, through time and without doubt, a comprehensive function in the further development of the interferences of the manifestations in the universe. Interferences that reflect dead 'matter' but also the 'living' nature.

Monistically, there are no other free electric and magnetic quants active than what has been described as part of the electromagnetic systems of entities that exhibit themselves as photons and neutrinos.

The last chapter, "The proton bond is at the brink of life" has a speculative heading.

It will be a monumental scientific challenge to grasp why the proton, with its complex structure of recurring interferences, is exceptionally stable almost indestructible and certainly not cuttable - and at the same time performing functionality that will support life as we encounter in the various forms.

This scientific endeavor is outside the scope of The Dutch Paradigm.

Still, a modest contribution will be made in the following chapters, in which specific aspects of the proton and the proton bond will be discussed—all to encourage further study and discussion.

19. THE PROTON BOND WILL ALLOW INTERVENTION

In the preceding chapter, the observation was made:

The proton has, through time and without doubt, a comprehensive function in the further development of the interferences of the manifestations in the universe. Interferences that reflect dead 'matter' but also the 'living' nature.

Monistically, there are no other free electric and magnetic quants active than what has been described as part of the electromagnetic systems of entities that exhibit themselves as photons and neutrinos.

The human has a physical body comprising atoms interchangeable with what is in the world outside of his 3D perimeter. His physical cladding consists of layers of epithelium. Within these boundaries, he can exert actions that modify objects in the outside environment and within his body. Actions performed consciously and unconsciously.

These actions, in essence, are based on a tactile impact on objects by exerting forces. Objects can withstand these forces due to the 'Pauli Exclusion principle' and will react by a displacement in space.

To do so intentionally, the human must be able to think, feel, and act by his will. He lives in a dual-operating world of tangible illusions of photons and neutrinos in various compositions.

When we say that humans must be able to think, feel and act by will, then these are assumptions. There is no objective reason why this is a necessity for the universe to exist. There is also no objective reason to assume that humans are unique in these aspects; therefore, these assumptions are in the realm of non-monistic considerations. It is up to the individual human to accept or reject that he is only a construct consisting of physical 'matter' that acts deterministically, with a potential but not lasting impact in that final deterministic fate.

The scientific questions then can focus on what this 'matter' is and what the deterministic fate will be. For optimists, there can be ideas on how to escape that deterministic fate by human intervention and rearranging of physical realities to delay a fatal end of his presence in this hostile environment. Or otherwise not accepting the challenge and rejecting a conscious continuation of his existence in this world by ending it before the end of his days.

This is all well and must be respected.

But everyone is free to assume that there is more, apart from the physical presence. The act of thinking can be accepted as a non-physical input. An ontological accepted reality.



"Cogito, ergo sum' is all very well for you, but what about me?"

We now can observe that in this universe of tangible illusions, we can find possibilities to adjust some of the tangible illusions by personal intervention. We know that we are here and on Earth, as in the saying of Rene Descartes 'cogito ergo sum,' I think therefore I am.

But, as is illustrated in the cartoon of James Stevenson, there is more than my individual being at stake.

The Dutch Paradigm makes a distinction between the monistic and the dualistic world. We know that, as humans, we can think, feel and act.

We encounter in the proton with the proton bond the potential to have an overview of the moments of **NOW**, in hindsight or preview.

It shows that it is foreseen that we can exercise these capabilities in this monistic world of tangible illusions.

But with a caveat.

We cannot withstand the capabilities of the monistic world to equalize our individual impact over a multiple of the objects.



https://laughingsquid.com/how-synchronization-inevitably-arises-from-chaos/

The action of equalizing can be very short, takes some time or last for centuries:







The heading of this chapter is 'The proton bond will allow intervention': intervention in the monistic world is possible, as proven by examples.

How this intervention can and will materialize is a complex process with many variables. The proton was already active in forming the nuclei of the elements as listed in the Periodic Table, but it will also facilitate stirring in a cup of tea to dissolve sugar.

The chapters will, therefore, basically be phenomenological and indicative.

20. TWO EIGENSTATES OF THE PROTON

Based on the modeling of The Dutch Paradigm, we know how the proton is derived from the neutron.



Protons are present in the outside world as we encounter and most likely throughout the universe. They are also present within our living bodies.

The protons inside a living creature can behave differently from what we experience outside our bodies. Maybe not all, but at least enough of them to allow us and other living creatures to move around in that outside world without an apparent monistic reason.

Therefore, something in these protons is configured differently, enabling us to act despite the dominant monistic deterministic behavior. The physical act will be in the outside world, but within the boundaries of our body, we can follow another set of rules by the presence of these dissimilar protons. In the figure above, it is illustrated that the proton can be derived from a neutron with its electrons left-handed or right-handed. In regular terms, that would be indicated as electrons and 'positrons.'

Protons outside living bodies are incredibly stable. They will not decay. At first sight, it makes sense to assume that protons within living bodies are also highly stable and do not decay.

This assumption is most likely not valid.

Most 'matter' is dead and perfectly predictable in its deterministic behavior. Protons or some of the protons within the 3D perimeter of the human body can impact the movements of objects in that same environment. The human can adjust objects tactilely to new positions in space. He rearranges objects in the physical monistic world as per his will. The same applies to the limbs of man. He can redirect his arms and legs to a moving pattern, not foreseen by outside interference. He is in control over moving his limbs.

Besides this, he knows that there is a lot of moving 'matter' within his body, with a heart that beats, lungs that breathe air, blood that flows through his veins, digesting food, and the like.

Man is reasonably confident that he is made of different 'matter.'

But: we also know that the body of man is composed of the same ingredients, being the manifestations of gamma photons and gamma neutrinos. They are also organized similarly into electrons and dodecahedrons, as in the outside monistic world.

We also know that after the end of the life of the human body, it will decay into 'dust' with still the same ingredients.

So what is different in 'matter'?

The fundamental question then is: why can a proton guarded within the human skin have a different potential behavior compared with the proton when it is in ambient environmental conditions?

So what is different in 'matter'?



It makes sense to assume that the β -decay can work out into two types of embodiment of the proton.

As illustrated in the scheme, the two dodecahedrons of the neutron are both in the same state of oscillation, having per neutron all their vectors pointing either inwards or outwards.

Let us assume that the variant with the inward-pointing vector of the asymmetric electric gamma photon has a slightly higher energy content and, thereby, a higher frequency and shorter wavelength. This will result in a proton that is in its proton bond equipped with the two gamma photons at a higher level of energy compared with a proton that emerged from a neutron with a lower level of frequency of the gamma photons. Once the proton is established, it will have in its proton bond either the two gamma photons at the 'higher' energy level or the two gamma photons at the 'slightly lower' level.

With the difference in the history of the β -decay, do we then arrive at the exact same specifications of the proton configuration?

The answer is no.

Therefore, we may prudently assume that the history of the β -decay is relevant and will result in two types of protons that are different in their vector arrangement.

The history of the β -decay is impacting the specifications of the proton bond

We can logically justify that there are two eigenstates of the proton relative to the setting of the proton bond. There is one proton type with the gamma neutrino and gamma photon always having the same rotational sense and one with the rotational sense between themselves in opposition.

But having said this, it is also to be expected that the one with the opposite sense of rotation is unstable. The proton with the gamma neutrino and gamma photon in an opposite sense can lose its surplus of energy and fall back to the lower levels of energy.

At the same time, such

a fallback is likely recoverable, but under conditions.

How such a recovery is thinkable, will be discussed in next chapters.

21. MANIFESTATIONS CROSSING AT THE CENTER OF THE PROTON BOND

As stated in previous chapters, an in-depth study is required to unravel all the peculiarities in the plane of the proton bond.

The proton bond is a quite busy place.

In the plane where the proton bond is situated are manifestations of a gamma neutrino and two gamma photons active. The gamma neutrino will interfere alternately with one of the gamma photons. This interferences follow the encounters of the manifestations of their free electric and free magnetic quants and their electromagnetic systems from which the free quants emerged. Each manifestation has a set of specifications regarding linear and rotational behavior in propagation and frequency, left, right, up and down, trigonometric model of the electromagnetic system, and patterns of incidental or recurring interferences.

All these specifications refer to monistic phenomena. After each and every Planck time, the systems adjust to the deterministic outcome. Therefore, preparing a mathematical model to preview the expected outcome is possible.

The free electric quants are 'free,' but the freedom for spatial movement is within limits. We need to take these limits into account to understand the spatial behavior of the free electric quants.

The freedom to move spatially is directly linked to the entity from which the free electric quant originated. The free electric quants escaped the instantaneous equalization by the electromagnetic system of their entities on the occasion of the Big Bang, and their entity's electromagnetic system started a perpetual chasing match for recapturing from then on. This recall follows a strict and deterministic pattern by the electromagnetic system of the entity. Each spatial movement of the free electric quant is neutralized, but always with a delay of 1 Planck time. This causal response is after the event, while in the same Planck time, the free electric quant makes its next move. This causal sequence is perpetually executed.

The free electric quant of a gamma photon can interfere with the electromagnetic systems of other entities, as we know so well for the

electron where it interferes with the electromagnetic system of a gamma neutrino. This interference is with the magnetic section of the system.

The interference with other entities has limitations. We know the Pauli Exclusion Principle. In quantum terms, it defines particles of half-integer spin must have antisymmetric wavefunctions. It originates from the observation that, for unknown reasons, no two electrons in the same atom can have identical values for all four of their quantum numbers.

In The Dutch Paradigm, while not working with quantum numbers, this principle is made operational by the assumption that this means that two identical entities with half-integer spin cannot occupy the precise same position in physical space. The reasoning is that if this were the case, their combined manifestations would breach the limit of the speed of light.

For now, and for understanding the proton bond, it hints that entities are spatially at a minimal distance and are stacked in multi-layers.

As a metaphor, it is imaginable that the Pauli Exclusion Principle and The Dutch Paradigm interpretation need refinement in line with collision control as with a gramophone plate changer.



The engineering of such an old gramophone plate changer has still applications. A modern application of the ideas was applied for the storage of data on a multi-platter hard disks is as on this photo:



www.lazarusdatarecovery.com/blog/anatomy-of-a-hard-drive

22. THE PAULI EXCLUSION PRINCIPLE AGAIN

The previous chapter highlighted that it is imperative to understand the practical application of the Pauli Exclusion Principle when modeling the proton bond. Such a remark can be criticized as an attempt to oversimplify reality while not accepting that it is impossible to comprehend quantum mechanics.

Many attempts have been made to clarify Wolfgang Pauli's original finding that no two electrons can have identical values for all four of their quantum numbers. These quantum numbers being

- **n** the principal quantum number
- l the azimuthal quantum number
- **m**₁ the magnetic quantum number
- **m**_s the spin quantum number

The last one, \mathbf{m}_s , is mysterious and has a value of $\frac{1}{2}$ or $-\frac{1}{2}$. There is no direct meaning to the value itself, and it is just a classification with 0 as another quantum number in this class.

The Pauli Exclusion principle is intermingled with the assumption that the electron is an elementary particle with an antiparticle being the positron and that the Heisenberg Uncertainty principle is valid.

This idea of the Pauli Exclusion principle is also reflected in the model of the nucleus:



The Dutch Paradigm has modified the understanding of the Pauli Exclusion Principle as follows:

No two entities can occupy the precise same position in physical space

It relates to the consequences of the Big Bang, in which all entities involved became separated by a minimal space. We identify this space within the physical universe as 1 Planck length. This minimal space is 1 Planck or an integer value of Planck lengths.

The Dutch Paradigm interpretations also allow entities to exert repulsion on other entities via their free electric quant. It logically explains why photons can transfer an impulse to objects.



23. POLAR GRAPHS: LIMACONS IN A MORE PRECISE APPLICATION FOR MODELING

So far, polar graphs have been applied to clarify the path of the electromagnetic system of a 'naked' neutrino entity to follow its free electric quant. This can be done by choosing a non-inertial orthogonal frame of reference with the neutrino entity in the center.



This polar graph is a limaçon and is defined as

$r = a + bcos\Theta$.

In this example as graph a=1 and b=1. It is a cardioid.

When the free electric quant of the neutrino is 'naked' - no impact of exogenous interferences - then this is the path that the electromagnetic system of the neutrino will touch in following and correcting its free electric quant. The corrective action is symbolized by a vector originating from the center where the neutrino is to the quant's last position on the cardioid's perimeter. It covers the distance of the center to the perimeter where the free electric quant was in the previous Planck period.

Therefore, whether this cardioid will be followed is totally dependent on what the free electric quant of the neutrino has done in the last Planck event. Looking at the graph of the cardioid, we can deduce that once a neutrino has a specific direction of rotation, say left-handed chirality, it does not need to adjust that direction as long as the free electric quant has not changed its direction of rotation – in naked conditions.

The neutrino will undergo interference when the free electric quant of a gamma photon crosses its cardioid. An electron will be constituted. From that moment on, the gamma photon will magnetically 'supplement' the neutrino to induce a change in the direction of rotation. It will do so per each oscillation, as extensively has been explained.

When the magnetic compensation of the gamma photon can supply the required corrective causal impact on the free electric quant of the neutrino, the electron will oscillate. At crossing the center point, the free electric quant of the neutrino is then able and will induce the change in chirality.

The graph shows this as a limaçon with an inner loop.



From a mathematical point of view, this path follows the same equation but with differences in the values of a and b. The corrective upfront action on the free electric quant of the neutrino is directed to changing the sense of rotation. As stated, this corrective action is done from the magnetic part of the electromagnetic system of the gamma photon in the electron. It induces the change, and from thereon, the free electric quant follows a pedal or leaf of a lemniscate. The lemniscate will bring the opposite cardioid and will continue as a cardioid without a loop until the subsequent oscillation of the electron.

The loop is tiny, even relative to the dimensions of the limaçon.

Lemniscate loop with change-over from right-handed chirality.



Cardioid changed into right-handed chirality



The lemniscate fulfills a specific function in creating the condition within the proton bond to allow the change-over of inference of the gamma neutrino with the two gamma photons.

This will be discussed in the next chapter.

24. REFLECTIONS ON THE PROCESS SEQUENCE OF THE PROTON BOND'S OSCILLATION

The oscillation within the proton bond starts a sequence of complex process steps that need to be studied in detail regarding peculiarities and causal consequences.

To get an insight, the study must follow the periodic status adjustment per Planck time for all three free electric quants after the event that initiated the oscillation.

The initiating event is that the missing magnetic quant becomes available as required for the timely change of the rotational direction of the gamma neutrino. This magnetic supplement becomes available from the gamma photon active in the electron of the proton bond.

The first step in oscillation is a specific cycle event for the electromagnetic system of the gamma neutrino. It requires a precise condition for interference to allow the supplementary magnetic compensation to synchronize with the free electric quant of the neutrino.

The gamma neutrino will change its limaçon into a limaçon with an inner loop.

This is illustrated in the first book chapter 23 Neutrino: EM-system in rotation, with an animation:



These Planck steps continue in sequence until the oscillation cycle is completed, and all three entities, two gamma photons and one gamma neutrino are again in a stable interference mode. Durable until the subsequent oscillation starts the cycle all over again.

Such a listing of the process steps can be developed as provisional and thereby might require refinement, but the start- and finish conditions can intuitively be foreseen.

Intuition is helpful to understand the phenomenological impression that the proton bond triggers in the mind.

The active composition of the three entities, with their electromagnetic systems and free electric quant, appear to be built up in three layers around a vertical axis.

We can use the metaphor of the hard disk drive with three platters for clarification. Of course, the proton bond is not a hard disk drive but still a tangible illusion. Nevertheless, we may use the metaphor for didactical purposes.



All three entities in the proton bond have an identifiable rotational direction:



1. Top layer

The gamma photon has a rotating magnetic component, and the electric component is linear on a vertical axis but out of center. It provides the 'electric charge' by asymmetry

2. Middle layer

Gamma neutrino with both electric and magnetic components in rotation

3. Bottom layer

As the top layer, but with the vertical axis (almost) in the center of spin of the gamma neutrino. Functional this gamma photon is idle

The top layer is the active layer on which the free electric quant interferes with the middle layer.

The free electric quant of the gamma photon in the top layer will interfere with the magnetic component of the gamma neutrino in the middle layer.

It is per illustration the regular electron:



This gap between the top and middle layer must allow this interference, and it has to be less than 1 Planck length. See arrow and encircled area in the illustration.

Note: for clarity of the illustration and animation, the gamma photon is illustrated with two cycles, while in fact, in the first electron shell, there is only one standing wave. In these relative dimensions of

the constructs, it is not doable to illustrate more precisely under preserving the didactic purpose for elucidation.

The free electric quant must be restricted to the trajectory of the sinusoid of the gamma photon and, therefore, has to adjust the vertical position of the entity's gamma photon. Such an imperfection is expected to have a reason for a functional application. It is a signal. I will not discuss a potential practical application in further detail. Still, it does mean that with every cycle of the gamma photon, there will be a tiny wrinkle on the vertical position of the photon entity.

Following coherent logic, the bottom layer must have a sufficient gap to the middle layer to idle the gamma photon from interference with the gamma neutrino. The idle gamma photon's electric manifestation is in the limaçon's center, so the gap between the bottom and middle layer of rotational electromagnetic manifestations can be minimal.

As previously discussed, it is also possible that the proton bond is active with the gamma photons in the opposite rotational sense relative to the gamma neutrino. The oscillation sequence is comparable, but there will be significant differences in the interference of the active gamma photon and the gamma neutrino in the period between the oscillations.

Identifying all the intricacies of the proton bond will require in-depth study, with attention to the impact of the proton bond on more complex nuclei and the potential for information exchange to and from the electrons.

An electron can be seen as a reduced proton bond, with only one instead of two gamma photons and the gamma neutrino that shows alternately leftand right-handed chirality.

An intriguing aspect to be studied is the possibility that the proton bond uses gyroscopic properties, specifically identifying 3D adaption per succession of 1 Planck step.

24. CONSTRUCTING THE MORE COMPLEX NUCLEI

We are now in a position to start thinking about further development of nuclei of elements. This venture started in the first book of The Dutch Paradigm and resulted in the definition of the stable Helium-4 nucleus. See Chapter 37, Neutron/proton composites.

The Helium-4 nucleus consists of two protons and two neutrons. The atomic number is 2, equal to the number of exogenous active protons.

In the prevailing paradigm, the electric charge of a proton is isotropic +1. The Dutch Paradigm has clarified that this electric charge is anisotropic +1, but due to the tumbling of the nucleus, this can be misinterpreted as quasi-isotropic. A similar issue is with the spin. A proton oscillates but cannot make a spinor. This results in an alternating $\frac{1}{2}$ character of left and right spin with an exogenous idea that no spin exists or $\frac{1}{2}$ spin if a spinor can be performed comparable with electron behavior.

The anisotropic character can also induce a dark matter configuration. Such a dark matter configuration of the proton shows a behavior similar to two neutrons, being electrically neutral and equal in mass.

The idea of dark matter as part of the Helium-4 nucleus was introduced, and the neutrons became less identifiable.



Such a form of building a stick is, at first sight, helpful in testing the ideas versus the reality regarding the characteristics of the nucleus of Helium-4.

It is likely that proton bonds with vectors in opposite directions are required and feasible to ensure the durability of the He-4 isotope. See also the third book, subtitled From Chaos to Atoms par. 16 Is dark matter stable?

The idea of dark matter as a further development of the original two neutrons worked out well, but whenever preferred, there is no issue to follow the assumption of the prevailing paradigm that He-4 is based on 2 protons and 2 neutrons.

The proton, as a double dodecahedron, shows two faces suitable for a further expansion of the stick. On one side opposite the proton bond, the proton has a single gamma photon in rotation and an empty face on the other.



With the understanding of the nucleus of Hydrogen and Helium-4, we are only just touching the first layer of the Periodic Table of the Elements.



Though the end faces of this stick are open for housing double dodecahedrons, it is counterintuitive that such a stick would grow. The stick is rigid, but if it is longer, it would become vulnerable.

It also became apparent that a firm attachment of dodecahedrons directly to faces other than the two end faces would complicate the 3D building of nuclei.

There is a clue in the arrangement of the electron shells and the number of electrons per shell.



In the Bohr model, Helium has two electrons in the K or the shell 1. The next element is Lithium. Lithium has three electrons, two in the shell 1 and 1 in shell 2. This third electron reflects that an additional proton of Lithium



Figures Energy levels and Periods of electron shell configuration

So, how do we extend the stick in the nucleus to address this step change to another energy level or subshell?

Also, what arrangement would be suitable to extend the construct to, say, Lithium?

Based on intuition, I assumed that the Helium-4 stick configuration is repeated on the Energy level II

This intuition is based on the knowledge that Helium-4 is the final product of the primary nuclear cycle of the Sun, as well as resulting from nucleosynthesis.

The proton-proton chain reaction in the Sun shows that at that stage of forming nuclei, another abundance of H-1 and He-4 becomes available.



Therefore, it makes sense to assume that the nucleus of Lithium comprises He-4 with the addition of an H1 nucleus.

Such an arrangement could be constructed as in this figure:

Lithium



The coupling on the end of the He-4 stick and the H1 is then based on neutrons.

With the same logic, we can expand to the nucleus of

Beryllium



It is important to note that Beryllium is not an extension of Lithium into Beryllium, but the result of a separate addition to another first stick of He-4 with an additional He-4 stick.

Some extensions may be required for stability:



Both arrangements at the end may link into the first stick of Helium-4, but they can also be arranged to connect to another stick. This arrangement will be discussed further in the chapter.

With Lithium and Beryllium, we arrived in period 2:





Boron, Carbon, Nitrogen, Oxygen, Fluor, Neon

How the sticks are linked together needs further consideration.

In the configuration as in the figure above, there will be open space between the identical sticks. If that makes sense, this space could be filled with one or more neutrons. The assumptions can be checked by arranging electrons in the electron shells and the factual dimensions of the nuclei.

It is assumed that such an open space – if required - could be part of the configuration and that adding neutrons to the nucleus will allow the formation of isotopes.

Filling the electron shells as per the Bohr model so far for periods 1 and 2 : is represented in this illustration:



The next step after Lithium is an element that brings a whole He-4 stick. The element represents Beryllium. Therefore, the arrangement for adding additional He-4 sticks is made so that the element is a parallel repetition of the original start with the He-4 configuration.

In a cross-section over the bundle of He-4 sticks, this may look like:



Each stick position in the cross-section can serve two Periodic Table elements: one with an H1 proton and the other with a whole He-4 stick. For instance, position 2 of Be is also geometrically the position for a proton that completes Li.

For further explanation, I refer to each circle as representing the crosssection of a potential He-4 stick; the number relates to the period, and the repetition of the number is the place of another element in the period. The explanation for a single H1 in a similar position is the same every time. The question arises:

How are these sticks configured in the cross-section and spatially coupled?

The sticks must be geometrically consolidated in a format that withstands decay.

Such a format can be serial, parallel, or mixed mode.

Further information is required to understand the functionality of the neutron(s) linking the He-4 sticks. So far, I have indicated a neutron with an additional single dodecahedron, but this format is questionable.

Factual data is available to explore the number of additional neutrons for the elements as in the Periodic Table to allow for sufficient stability.

We therefore move over in the Periodic Table of Elements to period 3, starting with Na, the abbreviation of Sodium.





The issue of fixation starts already with Sodium. Sodium starts the next shell or subshell of electrons around the nucleus. This reflects the arrangement of the He-4 sticks in the nucleus.

We can configure period 3 with focus on the elements that add a whole stick He-4 to the bundle:



There are four extra neutrons in the configuration of Argon. In this figure I have indicated a possible position of these neutrons on the head side(s) of the sticks.


The fixation can be tangentially or radial, per view A ----- A or a mix.

Comparing the number of electrons per electron shell with the crosssection over the bundle as per Argon, we see that each He-04 stick represents two electrons in the same shell.



B	C	N	O	F	Ne
AI	SI	15 P	S North	17 CI	Ar

These layers are configured radially as spokes in a wheel. Periods 2 and 3 are at Energy Level II. Period 3 ends with Argon.

Per the information in the Periodic Table, it is clarified that the elements in periods 1, 2, and 3 do not require neutrons as spacers between sticks. Therefore, the arrangement can be revised to:



The head side neutron is turned to show two sets of parallel faces



while the He-4 sticks arrange in a mode of not touching as per cross-section as in the figure.

We can conclude that:

A single neutron can divide and connect two sticks.

The next step is to configure periods 4 and 5.



Both layers comprise 9 sticks.

Each element in the Periodic Table adds to the previous element with an additional proton. The logic to form a stable Kalium isotope requires a stable base or foundations configured in the last period, which is Argon. The stability of Argon requires 4 neutrons on the head-sides. Let's compare these 4 neutrons with the additional neutrons needed to stabilize Calcium. We see that Calcium does not need these extra neutrons, but in the following step, Titanium does:



If there is some logic in the requirements for fixation, then that is not compulsory for the number of required additional neutrons. At the same time, there can be significant differences in the stability of the elements measured on their atomic mass, as noted in the Periodic Table.

In order to clarify this issue, a table was made over all the elements in the Periodic Table and compared on this aspect of carry over of additional required neutrons for stability and the addition per extra element.

The comparison is as example made as per this section:

			Theory				Expected	Measured	M-Theory	M-E mutatie	Extra	Toe/afname	Cum.	1
												1	16	
						112.44								
5	4	9	98	In	1	1	114.44	114.82	16.82	0.38	0			
5	5	50	100	Sn	1	1	116.44	118.71	18.71	2.27	2			
												2	18	
						118.71								
5	5	51	102	Sb	1	1	120.71	121.76	19.76	1.05	1			
5	5	52	104	Те	1	1	122.71	127.60	23.60	4.89	5			
												5	23	

The first column indicates the period, and the next column is the element's number. Then, according to the current rule of at least one neutron per proton, we have the associated minimum atomic mass number and the element's name.

Then, we must add 1 proton and 1 neutron, respectively. For example, the sticks that form Sb and Te show the number 118.71 of Sn, the atomic mass number of the previous stick as per the Periodic Table. The net column shows the expected increase in the atomic mass number by 2, respectively 4. According to the Periodic System, the next column is the value of the atomic mass number of these elements. Columns 19.76 and 23.60 indicate the difference between the theoretical value per the prevailing paradigm and the mass number according to the Periodic Table.

The column after that shows the difference between the expected minimum and the actual atomic mass number. The next column displays how many extra neutrons this stick will add to the previous processing of the He-4 sticks. I indicate this in the yellow cell. The value of the penultimate stick is then used as input to determine the mass number to be expected for the following elements and so on.

This method needs refinement because the atomic mass number, per the Periodic Table of the Elements, is a weighted average based on a mix of stable isotopes and declares the number of additional neutrons in a decimal value.

There are more appropriate tables for identifying additional neutrons for fixation and stabilization, like one issued by Zeiss:



Periodic Table of the Elements with Isotope Mass and Abundance



An element adjusts to the number of sticks in the bundle. A new element will emerge if a stick attaches itself to a previously safe and reliable position on a bundle. An exchange of neutrons may accompany this, forming stable or unstable isotopes. The bundle of He-4 sticks will be filled based on their construction history and places available or foreseen through the ejection of neutrons.

There are several geometric possibilities for a stick to attach to the bundle; whenever possible, they will be used stochastically. Only the most stable

configurations can identify themselves over time and form the basis for the sustainable, steady expansion and inclusion of additional sticks of He-4— a kind of "survival of the fittest" at the subatomic level.

This also means that the location may have some but limited impact on the properties of the newly formed element. Here, too, a whole world of research will open.

After these considerations, we now are able to present the elements of period 4 in (one of their possible) configurations:



Period 5 can be equally configured as period 4.

The last two periods 6 and 7



They are more complex to configure, not because of differences in first principles in building the more complex nuclei, but because of the number of elements, including lanthanides and actinides. The spatial structure opens, allowing more places in the bundle to absorb neutrons and exhibit isotopic, stable and unstable behavior.

An attempt to configure up to the last element in the Periodic Table of Elements is shown in the following figure.



It reflect the table up to Uuo, Ununoctium, element nr 118.

Which encompasses all and the final elements as in the Periodic Table of the Elements.



It is a sobering thought that this is what the monistic world brings us as a tangible illusion to serve the "materialization" of the physical world we, as human beings, observe and encounter.

25. EPILOGUE

The building principles of the more complex nuclei, as discussed in the previous chapter's model, are astounding. They are easy to comprehend and allow precise calculations to verify in more detail versus the measurements we have gathered by experiments. It is also counterintuitive to what we expect chaos to instigate.

The configuration of the protons aligned along one axis only opens quite interesting new insights better to understand the phenomena and characteristics of the elements, as listed in the Periodic Table of Elements.

It is challenging to start discussing these new findings and insights. This will be done in separate publications in due time.

Even more astounding is that all events within the physical universe started by merely freeing up electric quants of photons and neutrinos from the immediate causality by the entities involved only.

We do not know why these free electric quants were released.

Were they released, ejected, rejected, or expelled?

It took an astronomical number of light years before we became conscious human observers of the physical world, and we have to accept that the objects we observe are exposed to us physically as tangible illusions only.

We are physically here and in a time between birth and death. With a struggle over many generations, we survived as descendants of our generic roots. We can now formulate and communicate such questions with fellow travelers in time, but we still lack a mutual understanding of why we are here.

As humans, we are mentally equipped with capabilities to think, feel and to express our will. We modify in a modest way our natural habitat. We create order and cohesion in what we encounter.

We are determined to progress in mastering our living conditions and bring nature to serve our 'needs.'



We are aware that this is a futile effort. Whatever we do in this physical world, we fail to make ever-lasting humanly inspired physical constructs. Our constructs fail due to the 'destructive impact of natural forces.'

But what if nature strives to create even higher levels of perfection out of chaos?





In our desire to discover how nature 'works,' we try relentlessly to understand the basic principles at the tiniest level of what we can isolate as 'mass.' We have successfully applied classical physics since Isaac Newton described his ideas about 'mass.' Still, we are disoriented when we try to understand the outcome of our ultimate effort to pulverize mass.



CMS is one of two general-purpose experiments at CERN's Large Hadron Collider (LHC) that have been built to search for new physics. CMS is designed to detect a wide range of particles and phenomena produced in the LHC's high-energy proton-proton and heavy-ion collisions.

So far, we have scientifically tried to understand the basic principles at the tiniest level of what we can isolate as 'mass.'

We did not find mass as Isaac Newton suggested.

We must accept that everything we encounter is ultimately energy- a phenomenon that can manifest as a tangible illusion. Phenomena of energy transitions exhibited by the manifestations of free electric quants of only gamma photons and gamma neutrinos.

It is hard to accept such a concept, but The Dutch Paradigm could not escape this conclusion after rethinking models to understand particle physics.

We may try to apply the phenomenon that perfection might follow chaos practically, but it will be hard to master the conditions as we observe for being required to emulate such processes. However, we might find ways to understand the favorable conditions for fusion and fission. We can already master particular fission processes but cannot correctly handle the chaos emerging from 'harmful' emissions of gamma rays, neutrons, and He-4 particles.

> What we perceive as waste are, in fact, the constructs that allow for building the elements. It can also be seen as an incentive to understand how to master creative chaos.

The same applies to working with isotopes. Nature has an abundance of neutrons to facilitate the formation of the elements' nuclei. As with neutrinos, neutrons are not harmful but play a vital role in the building and stability of constructs. What we indicate as decay of a neutron, so-called β -decay, is the act of creating the conditions to exhibit the full capability of the electromagnetic system of entities, what is regularly called the electric charge.



Whatever the tangible illusions will reveal to us as the next steps in understanding the purpose of the physical universe, we better try to understand the intrinsic value in perfection rather than strive to be a survivor as one of the fittest while accepting death as the outcome of this personal encounter.