

REFLECTIONS: BELIEF, DISBELIEF.



SPIRIT and MATTER.

Abstract

This work presents an interdisciplinary study that combines philosophical reflections on the nature of consciousness, the meaning of life, and faith with an original scientific hypothesis about the wave structure of matter and the fractal organization of the Universe.

In the first part ("FAITH, NON-BELIEF"), the author explores the fundamental driving forces of human existence—striving, love, diversity, and the problem of death. The role of imperfection as a source of development is discussed, and a perspective on the Creator as a wise parent who does not interfere in the lives of their "children" is proposed. The key conclusion of this part is that life is valuable in itself, and its meaning lies in the ability to love and find joy in the process of being, regardless of the answer to the question of immortality.

In the second part ("SPIRIT and MATTER"), a hypothesis is presented, according to which elementary particles are standing waves of energy arising from the interaction of electromagnetic waves with space. Within this model, explanations are given for the nature of gravity, electromagnetism, strong and weak interactions, quantum uncertainty, and the phenomenon of entanglement. The author also puts forward the idea of a fractal structure of the Universe, where black holes and galaxies are macroscopic manifestations of processes occurring at the level of elementary particles.

The work concludes with a synthesis of the two parts: consciousness and matter are considered as different manifestations of a single energy in different dimensions. A perspective on the soul as a source of energy and on love as a universal force underlying all processes in the Universe is proposed.

The text is addressed to a wide range of readers interested in profound questions of the universe and does not claim the status of a strict scientific theory, remaining the author's philosophical and intuitive search for a unified picture of the world.

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Preface

These reflections are philosophical in nature. They represent an attempt to look at the phenomenon of life from a distance, detached from everyday concreteness. They do not challenge religious views, nor do they deny moral principles. Rather, they seek to glimpse the underlying structure of ongoing processes and to ask: what might all of this be for? Inevitably, the search for meaning also brings the search for analogies.

To preserve the wholeness of this perspective, I have deliberately avoided detail and technical elaboration: no mathematics in describing the structure of the material world, no deep analysis of human consciousness, reason, or personality. This is not a theory, nor a hypothesis, nor a religion. It is simply a detached contemplation of life itself, viewed from another plane, where one may attempt to sense the causes and possible purposes of what is happening. There is no opposition here to either religion or morality. Any descent into specifics would reduce the horizon and turn this into yet another conventional mode of studying the world, thereby losing the integrity of the broader picture.

The work is divided into two parts. The first seeks to understand the essence of the human being, his uniqueness. In doing so, I intentionally set aside categories of good and evil, right and wrong. Essence cannot be approached through the lens of morality or religion. I see a human being as comparable to the engine of a machine: on its own it cannot move, yet through wheels, systems, and connections—morality, religion, science, culture—it gains motion. This part is the most challenging to grasp. People may share one language, yet they understand words differently, shaped by their own values, experiences, and aims. Even a simple phrase like “one language” may be interpreted in opposite ways: some may focus on the quotation marks and read it as “different,” while others will take it in its direct sense, a group speaking within one linguistic framework. I mean the latter. Thus, finding examples that resonate with all is no simple task. And still, one should remember: perspectives may be countless, and each has its own truth.

The second part presents my suppositions about the structure of matter, which might help explain the interactions we observe in the physical world. Here I do use several formulas, yet most explanations are built on images: the vibration of a string, the distribution of forces in space. This part is easier to follow, as the descriptive language is more precise. But science, too, is always relative. The same process may be viewed in different ways. For centuries, people successfully calculated the motion of celestial bodies under a geocentric model, until heliocentrism was adopted—not because the old model was “wrong,” but because the new one proved more convenient and made phenomena clearer. Yet even heliocentrism did not resolve all problems: the three-body problem remains unsolved. Thus the principle still stands—everything is relative. My goal is only to shift perspective, in hopes that such a shift might make processes themselves more comprehensible.

At first, these were two separate works I developed in parallel. But over time it became clear: spirit and matter are inseparably linked. Their shared essence is energy, expressed in different dimensions, while life itself stands as the point of contact between them. This text has been rewritten many times. It began as a simple statement of intuitive impressions, but gradually I reshaped intuition into reasoned conclusions. At the turn of 2025, I merged the two works into one.

The title “Faith, Unbelief” conveys the idea that it does not ultimately matter what one believes: whether in eternal life or in a single fleeting existence. Regardless of the answer, the principle of life remains. And in any case, I believe one should live in such a way that life itself is joyful and meaningful—if only because such a life is better, and more pleasant. But also because, at our core, we are love. And one should not betray oneself. To live truly, then, is to love.

BELIEF, DISBELIEF.

Before moving further, it is necessary to clarify several starting points. First of all, we must seek what is common to all human beings. This must be something inherent to a person regardless of the age in which he lives—something that would be found in our own time as well as in eras vastly different from the present.

From the material perspective, the most obvious commonality is the human body. A second unifying element is human feeling. Everything else may differ.

There is, however, another crucial aspect: the human being makes a *choice*. When confronted with the processes of the world, he evaluates them, and from this evaluation arises an attitude—either he likes what he perceives, or he does not. Out of this arises a force, a drive that draws him toward something or pushes him away. More often than not, instead of saying “like,” we use the word *love*. Yet in this context, love is not a mere emotion. It is a force, the very power that moves a person. Hence the well-known saying: “Love is the only force in the universe.”

In truth, what defines a human being is precisely this striving. It is the one characteristic that belongs to all. Feelings serve only as signals, guiding the body toward certain outcomes. At the same time, the emergence of feelings can also influence human striving. Bodies differ, and feelings differ, but striving remains. It is the only feature that unites all people, the common denominator of life itself.

And striving, as we know from physics, is a form of force. Force, in turn, is the result of energy in motion, of its transformation. Thus, the human being is an entity capable of altering energy, of directing it, even of generating it.

Now we must look more closely into the inner world of man.

Is immortality a gift or a curse?

A frightening word for the uninitiated is *death*. But why? Why does even the thought of death send a chilling terror through us and leave us paralyzed? After all, we know with absolute certainty that it is inevitable. We also know that everyone—without exception—who lived before us, who lives alongside us, and who will live after us, will die. Inevitably. There are no alternatives. There is no escape. It is an immutable law of nature.

But is immortality really so wonderful? Most people dream of eternal life, long to enter paradise and dwell there forever. They often see earthly life as some kind of punishment. But is that truly the case?

Imagine you have become immortal. Your body is perfect, you are invulnerable, and time has no power over you. What would you do? At first, such a life would seem magnificent: traveling, learning, delighting in beauty. Yet sooner or later, it would all turn into routine. Even the most beautiful sunset, repeating day after day, would lose its charm. Immortality seems appealing until you realize that it lacks the very thing that gives life its flavor—variety.

Here’s a simple example. Think back to when you made your favorite playlist. At first, the songs play in the same order, on repeat. In the beginning, each one excites you, but over time the repetition grows dull. Some may say that their mind has “outgrown” those songs and that’s why they seek something new. But that’s not entirely true—turn on shuffle mode, and for a while, the excitement returns. This shows clearly that what people need most is variety, for it is variety that fuels our striving and makes life worth living. This striving is our perpetual engine. Without it, we lose ourselves.

Let’s continue this thought experiment about immortal life. Take a notebook and try to write down all your “wants.” How many pages would it take? Would the notebook be enough? Or, better yet, would your imagination even be enough to fill it?

Now, add omnipotence to your immortality and invulnerability. With a snap of your fingers, everything you wish for instantly comes true. How long would you be able to keep snapping your fingers? How far would your imagination carry you?

So, is immortality really so great? And is death truly so bad, if our struggle against it brings so much passion and transformation into life?

Death is the boundary that gives life meaning. We should not strive toward it, but we must respect it—it exists so that we try to avoid it. Seen this way, death deserves at least a measure of respect. Fear should remain, for it drives us forward, but it must not blind us. We must understand that immortality would lead to nothing good.

Here, I do not touch on particular cases—illness, disability, and so on. I am speaking of the essence of the phenomenon. To grasp it, we must step away from categories of good and evil, benefit and harm, or the moral rules created by society. The point is to understand what truly drives life itself. We must put aside the “formulas” and see the process as it is.

Human beings naturally strive to avoid death and to achieve their goals. Their path is filled with obstacles—some predictable, some not.

Looking closely at all this, one can come to a logical conclusion: in reality, death is precisely what the immortal lack. Only for the immortal does death have meaning—because it is the one thing they do not possess. And human beings have a deep tendency to desire what they lack, while overlooking what they already have. In this way, life itself begins to acquire meaning. Life matters profoundly to the immortal, because it gives them what they are deprived of—death.

Perhaps we ourselves are immortal, and life is a gift—a gift that awakens striving, strength, and feeling within us. These feelings may be joyful or painful, depending on many factors: our starting point, our environment, the goals we choose, and countless others. Life may hold many possible meanings, depending on the perspective we take. But one truth is universal: we live as long as we have striving within us, as long as we are capable of love. Love changes us and the world around us.

That is why I have decided to treat life as a vacation—temporary, but precious. Yes, it can be spoiled, but it can also bring joy if we make the effort. Some may spend it idly on the beach; others may devote it to study, to art, to music, to creation. The most important thing is to listen to yourself, to know what *you* want, and not to blindly copy others. Life gives each of us what we truly need, though too often we are blinded by fear and distraction and waste our time.

Of course, none of this provides a definitive answer—whether we are immortal or live only once. But even if life is given only once, and even if it has no higher meaning, the principle remains the same: it is better to live in a way that brings joy. One may spend a lifetime tormented by the question of life’s meaning, or one may simply live and love. In the end, that is the only thing we truly can do.

Non-ideality as a source of diversity and the source of the urge.

In truth, everything is hidden within ourselves. This has been said for thousands of years. Everywhere we hear the same call: “*Know yourself.*”

Try to answer a simple question: what is the purpose of this thing we call the “I”? The heart pumps blood, the lungs supply oxygen and expel carbon dioxide. But the “I”—what does it do? Let’s not divide it now into subconscious, conscious, and superconscious. The key is to understand in general: what role does our “I” play?

First of all, it takes care of the body’s safety, ensures that it is fed, solves the problem of finding food. It monitors the state of our organs, breathing, the work of the heart. These are the first steps in the

struggle against death. Then the “I” begins to study the world—again, primarily in order to evade death. Yet at the same time, it seeks ways to ease life, to make it more comfortable, to remove minor inconveniences.

This same “I” tries itself in art: painting to please the eye or to encode messages for others. Some express themselves in music, arranging sounds into pleasing sequences. Others devote their lives to mathematics, working on problems that sometimes have no final solution.

In general, the “I” is a problem-solver. That is its primary function. But what happens if the heart is deprived of blood? It ceases to function and loses its reason for existence. The same is true of the “I”: if it no longer has problems to solve, it disappears. The paradox is that the “I” seeks to eliminate problems, which ultimately leads to its own destruction.

Yet, as with the heart, there is consolation: blood moves in a cycle, and for the “I” it is essential that every event is both good and bad at the same time. Life is like a wave: you cannot create only the crest, there will always be a trough. Every effort to create good inevitably brings forth its opposite. A magnet cannot exist without two poles. An electron cannot appear without a positron—they are born together. So too in life: every phenomenon carries duality within itself.

Everything in the world is a wave. Elementary particles are oscillations of the electromagnetic field. Life situations are oscillations of a conditional field of “good and bad” or “light and dark.” Feelings provide the energy for these oscillations, and the driving force is our desire: “*I want*” or “*I don’t want*.” Man becomes the generator that creates waves in this field.

It is fitting here to recall the phrase: “*Love is the only force in the universe*.” The key is that there is no “not.” When you want something, you see the goal and move toward it along the shortest path. But “*I don’t want*” is only a distorted form of “*I want*,” lacking a clear goal. Instead of running away from something, it is better to find something to move toward. Then strength, direction, and clarity appear. Everything depends on our thoughts, our attitude, our understanding. And understanding allows us not to get trapped in negative emotions but to maintain a balance between the positive and the negative.

For events to unfold, desire is necessary. Imperfection generates the urge to overcome, and thus—the drive to develop. It is imperfection that gives rise to diversity, and this diversity is what makes life beautiful. Errors in DNA replication at the quantum level gave us the astounding variety of flora and fauna, and it is precisely this variety that makes the world so fascinating.

Without errors, perfection would lead to uniformity, the absence of growth, and the absence of life itself. Mistakes create the soil for the world’s diversity. As a Chinese proverb says: “*In overly pure water, no fish can live*.” Perfection is not meant for life. Many teachings say the same: do not build idols of perfection. Striving for the better is necessary, but perfection is a trap.

Creator

Another important question arises sooner or later in the life of many people. Moreover, it is not uncommon for people to try to scientifically prove or disprove their own assumptions. I am speaking about the existence of the Creator (God, the Almighty, Allah, and many other names) and about what kind of relationship a human being should have with Him.

This is indeed not a simple question. The diversity of opinions makes it difficult to choose. Every religion is beautiful in its own way; each carries vast spiritual experience and helps to form a person’s moral foundation. But which one should we accept? Which is true? Or should we take the position of science: if it is not proven, then it does not exist?

This question arose before me as well. For a long time, I could not find an answer. Everything I set forth below is only my personal point of view, not a claim to truth. It is merely my choice.

If we recall what was said earlier — that the world is perfect in its imperfection — then one might suppose: the world was created intelligently. Which means that most likely there exists a Mind that brought it into being. It is not so much about the complexity of the cell or the improbable chemical reactions that gave rise to life. It is about the Reasonableness of the world's very structure — its imperfection. From this perspective, I am inclined to believe that the Creator exists.

Many people know the feeling of parents who, at some point, must “let go” of their children so they can begin living on their own. Otherwise, they will not grow up, will not gain independence, and will not know the taste of life. This is a difficult decision, but a very important one — both for the parents and for the children. True parents want happiness for their children, and their only reward is to see the joy and reason in their lives. They do not need constant gratitude or material gifts. It is enough to know that their children are happy.

Children who continue to complain about the unfairness of life and cannot take responsibility remain children. They may be charming in their childishness, but they do not become adults.

Thus, I came to the conclusion that if the Creator does exist, His role is in many ways similar to that of parents. He gives a person the chance to grow up. He does not interfere or dictate exactly what must be done. Our love for the world is our gratitude to Him for giving us all of this. Perhaps He is always near and able to support us in a critical moment, but like a wise parent, He will not live our life instead of us. Yes, we will make mistakes, we will get burned, but there is no growing up without challenges. The main thing is that these difficulties remain surmountable, for without that, growth is impossible.

Our joy may be expressed in many things: in music and food, in discoveries, in the stillness of being alone with nature, even in simply watching an autumn leaf fall. For each person, it is different, and there are no limits here. But one condition remains essential — respect for others. As much as possible, do not spoil the lives of those around you. That is reasonable.

Even if I am mistaken and the Creator does not exist, the position I have chosen will not harm me. Therefore, I come to the conclusion: it does not matter which answer a person chooses for themselves. In any case, the only thing we can truly do is to love the world. The answer is always the same: love the world.

Alongside the image of the Creator, there always arises His opposite — the Devil (Satan, Lucifer, Beelzebub, Iblis, and many other names). He is usually regarded negatively. But let us look at this differently.

There are many theories about his role. But the key point is that the Devil does not force anyone to follow his will. He only offers, and the human being chooses. Here we can draw a parallel with school exams. The teacher provides options, and the student either finds the right answer or stays behind for another year. Should we hate the examiner? He is simply doing his job. In the same way, the Devil is an examiner, and therefore a teacher. He should not be feared, but he should be respected. For it is mistakes that become the soil of our growth. The only real danger is doing nothing.

In closing this section, I want to say: I am convinced of the existence of the Creator, but I could not accept any particular religion. Each carries great potential, but at the same time they often carry fear. Here I recall existentialism, a philosophy that emphasizes the human overcoming of one's own nature and the depth of emotional experience. In it, fear plays a special role: it can push a person to the limit, forcing them to reconsider their values and search for new meaning.

I myself had to go through panic attacks that lasted for two or three years. They forced me to seek answers to questions I thought I had long forgotten. Their lack of resolution still influenced my life. Thus I realized: fear sometimes makes us think. And although I did not choose a particular religion, each of them played its role in awakening that fear within me. For that, I am grateful to them. Religions are truly necessary — they give a person the ground to grow. But each has their own path.

The most important thing to remember is this: perfection is a trap. One should not build idols of perfection.

And finally — this is only my point of view. Every person must come to their own conclusion. These may differ, because everyone has their own experiences and values. Some need the unknown in order to live, others need exact knowledge. What matters is not to ignore the question. Find your own answer.

And whatever that answer may be, one principle remains unchanged: LOVE THE WORLD. That is the only thing we can do.

Focus of the mind

First of all, it is worth noting one more important point. Let us return to our “Self” and recall that it is always under the weight of “problems” in the broad sense of the word. Most often this “Self” is dissatisfied with everything and at all times. It focuses on the unpleasant, on what it does not like, and therefore remembers the bad for a long time and quickly forgets the good. This is a property of most “Selves,” and it follows from its function. Hence the reason why many people are unhappy. We come into this world for happiness, but because of the very nature of the “Self,” we are unable to realize it. Often we take the good for the bad, and the bad for the good.

I am not saying that consciousness (in the sense of the “Self”) should love endless problems. But one must understand: problems for consciousness are like moisture for a seed. Without moisture the seed will not sprout, and if you flood it with water, it will perish. The same is true here — balance is necessary. Without problems consciousness does not develop. When it comes to an understanding of this truth, it acquires the ability to manage feelings. Then it can, like a surfer, stay on the crest of the wave and enjoy life itself.

Of course, this process is not fast. It is like a child’s first steps. At first, we “crawl” — living within the framework of the “Ego” given to us by educators and mentors, a set of behavioral rules. Then life gradually departs from these expectations, and a person begins to understand: it is not obliged to follow predetermined patterns. For some this moment comes earlier, for others later, and for some never at all. Perhaps full comprehension requires more than one lifetime. This, by the way, may explain why even twins, living under the same conditions, differ so greatly.

The realization that life does not obey fixed rules may lead to a restructuring of consciousness. It begins to “separate” from the “Self,” trying to “observe” what is happening around not only on the basis of itself. It can also observe its own “Self,” watch its thoughts, emotions, and motives. In psychology this process is called self-reflection. By itself it usually does not arise; it is usually accompanied by shocks. This is not a split personality and not a rupture with the “Self.” A more complex structure of the relationship between the WORLD and the person is formed. It is known that the “Ego” is easily predictable, it is determined, but consciousness cannot be calculated — it is already another level. For consciousness, strict rules do not exist; its decisions do not come only from laid-down principles, it considers not only its own “Self” or only the surrounding WORLD. It is capable of finding a compromise between the existence of both entities. Here arises intuition or superconsciousness, that which eludes logical analysis.

In the second part of this work it will be shown that the circle and the sphere are a special way of organizing energy. Their connection with the number π , which is irrational, makes it impossible to calculate precisely the processes occurring along the circle. Only an approximate value can be set, but absolute accuracy can never be achieved. This serves as a good analogy for describing consciousness and intuition.

To clarify the difference, we can conventionally distinguish three levels:

- **consciousness** — it is always connected with the given moment of time, here and now, it is

the initial connection with the “Self,” our source, the source of energy;

- **subconscious** — this is our automatism, our rules, they accumulate through the movement of our “Self,” everything that once was no longer burdens our “Self”;
- **intuition** — is born in the process of self-reflection, the energy of the “Self” is spent on “looking around.”

In the process of forming self-reflection, one should not break away from the “Self.” The joint interaction of the entire structure is important. Only in this way is Mind or Personality formed. One should not neglect one’s “Self,” it is the source of energy. But one should also not forget about the surrounding. Balance must be maintained.

Such a division reflects the similarity of the spiritual and material structure of the world. Everything is energy, its different forms and transitions. A human being is a transformation of energy in three dimensions: consciousness, subconsciousness, and intuition.

Intuition is especially interesting. If the subconscious and consciousness can at least partly be studied, intuition remains completely behind the veil of the unknown. It cannot be calculated: if we have received a concrete answer, then we can no longer say whether it was the result of intuition. If we speak of intuition, we cannot know in advance whether there is an answer. One excludes the other.

Mind is capable of wonders. It knows how to solve tasks “in reverse” — for example, to turn unpleasant experiences, such as fear, if not into joy, then at least into a neutral feeling, and it does this with the help of thoughts alone. Thoughts possess tremendous power, and the Mind is able to direct them. Understanding that every event simultaneously carries both good and bad opens the possibility of turning minuses into pluses. Thus, the Mind is capable of managing our inner state.

Freedom of Choice and the Meaning of Life

Life is full of paradoxes and knows how to surprise. It is permeated with contradictions. Take physics, for example: there is a constant struggle between two fundamental theories — the theory of relativity and quantum mechanics. One describes the world as continuous, the other as discrete. The struggle of opposites is the very essence of life.

One of the often-raised questions is whether freedom of choice exists. On the one hand, much in the world can indeed be calculated, and therefore it seems that everything is predetermined. There are many arguments in favor of this — both in the field of strict science and in the field of the paranormal. But on the other hand, we cannot exclude ourselves — our inner world, our attitude toward what happens. The way we perceive events depends only on us. Therefore, freedom of choice always exists, as long as we exist. There is no contradiction here: as long as our “Self” lives, we ourselves form our attitude toward the world. Yes, what happens influences our decision, but no one makes it for us.

The world may resemble an amusement ride, but how we experience this journey is already our choice.

Now we come to the most difficult topic. Let me immediately clarify: every person has their own personal meaning of life, their own goals. But here we are not talking about an individual case, but about the process as a whole, about a view from the outside, without binding to a particular personality. Everything in the world is energy. If we look at a human being from this perspective, it becomes clear: the essence of life is development. For energy, development means filling different dimensions — I will return to this in the next part. For a human, development is manifested in the formation of intuition, which arises from the distribution of energy around one’s own “Self,” along the sphere. This process is self-reflection.

This is, of course, only my point of view, the result of observations and reflections on life from a certain angle.

SPIRIT and MATTER.

Structure of Elementary Particles. Photon. Gravitational Force.

To date, science does not describe the origin of electric charge. What is its nature? Why is its value constant for elementary particles? Charge does not change either its sign or its value regardless of the environment. Why does the mass of a body change when the speed of motion changes, but nothing happens to the charge?

It is known that:

$$1/c = \alpha \hbar / e^2$$

where e is the charge of the electron,

\hbar is the reduced Planck constant,

c is the speed of light.

One constant is expressed through another constant.

Can be examined at the link (<http://nuclphys.sinp.msu.ru/misc/constants.htm> second line):

Symbol	Name	Value
e	elementary charge	$1.6 \cdot 10^{-19} \text{ C}$
$1/\alpha = \hbar c / e^2$	fine-structure constant	137.0
c	speed of light in vacuum	$2.998 \cdot 10^{10} \text{ cm/s}$
h	Planck constant	$6.626 \cdot 10^{-27} \text{ erg}\cdot\text{s}$
\hbar	reduced Planck constant	$6.582 \cdot 10^{-22} \text{ MeV}\cdot\text{s}$
$\hbar c$	conversion constant	$197.3 \text{ MeV}\cdot\text{fm}$
.....
	neutron magnetic moment	$1.913 \mu\text{N}$

or at the link (<https://n-t.ru/tp/ns/oss.htm>).

The physical quantity inverse to velocity is called tempo. Tempo shows how much time it takes to cover a given distance.

This parameter is clearly a characteristic of an elementary particle — not of interaction, but of the particle itself. It is evidently related to the tempo relative to the speed of light. The question arises: what exactly is being traversed within the particle, and in what way?

The duality of elementary particles' behavior has long been known. They can act like corpuscles, or like waves. It is also known that a charged particle is capable of generating electromagnetic waves. It is therefore logical to assume that the particle itself may also be a manifestation of an electromagnetic wave. Waves give rise to waves. But unlike the concept of a free electromagnetic wave, a particle has a limitation in spatial extent. It is precisely this property that distinguishes it from an ordinary electromagnetic wave and makes it a particle. Most likely, the particle represents a standing wave in spatial dimensions. Something prevents this wave from spreading throughout space.

It is known that standing waves can only exist in confined space. The possibility of such confinement will later be explained, and this possibility can be understood against the background of unbounded space as a medium. But initially, we will assume that space is limited.

Usually, electromagnetic waves are considered transverse, requiring no medium for propagation. However, the very fact of their finite propagation speed prompts reflection: what happens to the energy

in space as the wave moves? If energy cannot change instantaneously, then at some point there must be a gradient of its variation in space. If that is the case, it is logical to suppose that an electromagnetic wave generates not only transverse, but also longitudinal oscillations of energy.

It should be noted that the term “longitudinal wave” is used here in an extended sense: it is not a new type of wave, but rather a part of the process associated with the front and the finite “thickness” of the electromagnetic wave. Essentially, it is the same field, but considered not separately, but as an integral part of the wave itself. This view makes it possible to unify the description of the wave and the field and to propose a quantization mechanism through the identical work of space in the formation of each half-wave.

When an electromagnetic wave leaves its source, it alters the energy density of the surrounding space. As it propagates, the energy at the source point gradually returns to its original value, but at a distance R it remains altered. This means that there is an energy gradient between these points, which can propagate in the form of a longitudinal wave. Classical physics does not consider this, but that does not mean it is absent.

Put differently: space, initially being energetically uniform, becomes non-uniform after the passage of a wave. And if energy is redistributed, then a process takes place that can be described as a longitudinal oscillation.

De Broglie put forward the idea that particles possess wave-like properties, but he did not provide a concrete mechanism for their emergence. If we assume that an elementary particle is indeed based on a standing wave, then a natural question arises: what exactly creates this wave? If an electromagnetic wave gives rise to longitudinal oscillations of energy, then it is these oscillations that can stabilize the standing wave, turning it into a particle. In this case, a particle ceases to be merely an abstract probability wave and becomes a real structure of space, born from wave processes.

We are accustomed to thinking of a field as something motionless — as if it were a timeless state of space, emanating from a source. But in reality, a field cannot be called a frozen form. It is always connected with the movement of energy, and its changes do not occur instantaneously but spread through space at a finite speed — the speed of light. And since the electromagnetic wave itself is a wave, the longitudinal variations of the field cannot appear as a sudden jump or a sharp shift. They too must carry a wave-like nature — smooth, continuous, inseparable from the very essence of the wave.

Moreover, the field does not only extend outward. It can also act upon its own source and the wave it creates. This is how radiation reaction or self-induction manifests itself: by radiating, a particle feels the returning touch of its own field. In this interplay of the internal and the external, of the wave and the field, a special state can arise: the wave ceases to spread freely through space and becomes confined within boundaries, as if “sealed” within its own size.

At that point, the field can no longer be regarded simply as a static shell. It becomes a standing process — an inner dynamics hidden beneath the appearance of stability. Wave and field are not two separate phenomena, but two perspectives on one and the same thing: the motion and the form of energy in space.

And when such a structure arises, it seems more accurate to regard the field as a standing wave — not as a motionless state, but as a process expressed in a longitudinal form. For from the standpoint of energy, it becomes clear: it is energy itself that shapes the stable structure of a standing wave, while never ceasing to move, never becoming still.

The next important point is related to the law of energy conservation. If we consider the emergence of a particle as the formation of a standing wave in space, then the conservation condition can be expressed in terms of work. Each half-wave must arise with the same amount of work, while their total contribution ultimately cancels out. In this way, the overall work of space remains equal to zero. Within such a system, space does not lose energy in the process of particle formation: energy is distributed symmetrically, and the particles compensate for one another. From this it naturally follows

that the number of particles and antiparticles must be equal, since only under such symmetry is the energy balance preserved.

In modern physics, the concept of baryon asymmetry is widely accepted, which stands in contrast to my assumption of an equal amount of matter and antimatter. I believe, however, that the key to this asymmetry lies in the very mechanism of motion of matter and antimatter. It is rooted in the structure of the standing wave that underlies the particles of both. Later, I will show this in more detail—at the level of force vectors that define their distinct behavior in space. For now, I will note only this: matter tends to move inward, toward the center—toward the black hole. Antimatter, on the other hand, exhibits the opposite tendency: it moves outward, toward the boundary, where, much like matter, it will be “processed.” This process will be addressed further on.

We can now move on to the description of how elementary particles are formed. Before that, let me make one small remark: in modern physics, there exist many different entities—point-like objects, fields, the curvature of space-time, and much more. In my view of the world, however, there is only one foundation: energy as a process. Everything we see is a manifestation of energy in its different forms. Matter and antimatter particles are standing waves of energy in space, generated by the electromagnetic wave—or, conversely, the electromagnetic wave may arise from them, which is equally true. A particle is the interaction of energy in space and across the sphere.

The only universal characteristic common to all processes is energy. Its essence lies in change: it is always in motion, always interconnected, without rupture or discontinuity. That is its nature.

From this perspective, there is no need to invoke the curvature of space or time, for they are merely linear characteristics. If we approach processes as transformations of energy, there is no need to “bend” time or space. What changes is the rate at which processes unfold, limited by the finite speed of interaction. This speed is constant and bounded. If part of it is expended, for example, in the manifestation of gravity, then for other processes only the remainder of the maximum possible speed of interaction is available. In other words, the rate of change of energy is always finite.

Thus, under certain conditions in the propagation of an electromagnetic wave, a structure may arise in which a wave-like redistribution of energy is observed. This manifests as a standing wave. By energy density here I mean that the longitudinal component of the wave process produces a wave-like variation of energy at each point in space. Such variation can be regarded as the energy density: a positive deviation from some average value corresponds to a “compression” of energy, while a negative deviation corresponds to its “rarefaction.”

Let us return to the concept of tempo. It is necessary to understand what is moving, where it is moving, and why the tempo can take the values “+1,” “−1,” and 0. (I divided the tempo by $\alpha\hbar/e^2$, since all of this is essentially a constant, but I preserved the sign of the charge, which will be very useful for us.) For now, let these simply be numbers indicating direction. That is: “+1” means that something is moving at the speed of light in one direction, “−1” means movement in the opposite direction, and “0” means that, as if, no motion is occurring in any direction.

We have the following: a particle is a standing wave of energy density, arising due to an electromagnetic wave propagating along the sphere — the boundary of the particle. The electromagnetic wave will also be observed inside, along spheres nested within the particle. This creates a wave of variation of energy density across the spatial dimension.

We will consider only standing waves, for which the mathematics has long been well established. First case:

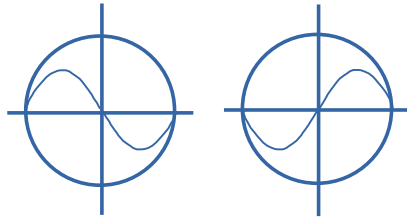


Fig. 1 The first elementary particle, the neutral, neutrino

The wave has a single node. The wave has traveled once upward and once downward. The result is zero. This is the first and neutral particle. Let us assume that this is a neutrino. If the node of the standing wave is located at the center of the circle, then the particle will be neutral. With an odd number of nodes, the particle will be neutral, while with an even number — the particle will be “charged.”

The next case — two nodes:

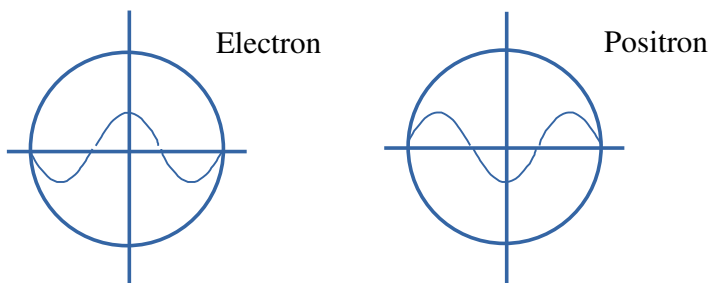


Fig. 2 Electron and positron

I will assume that this particle pair is the electron and the positron. For the electron, the wave descends twice and ascends once. Two antinodes are negative and one is positive. If we add them up, we obtain the tempo.

I believe that this is precisely what characterizes the tempo in the case of elementary particles. For the electron, it equals -1 . For the positron, it equals $+1$.

This is what the charge corresponds to — more precisely, the reciprocal quantity squared. That is why it is a constant. This applies only to standing waves, which can exist indefinitely. The key point is to understand that this is not the electromagnetic wave itself, but rather the wave of energy density distribution within a region of space, generated by the propagation of the electromagnetic wave.

This is the first “charged” particle — the electron and the positron. In this case, the electric charge corresponds to the tempo of wave variation in the region of space. For standing waves, the tempo is always known: it must be an integer from the set -1 , 0 , and $+1$. Only three values. What can vary are the characteristics — the particle’s circular radius, as well as the number of nodes or antinodes.

It is important to note that for matter, “charged” particles at the center always exhibit a positive change in energy density on the side of space. The energy density on the side of space increases — a process of compression takes place. For antimatter, it is always negative. The energy of the electromagnetic wave is spent on reducing the energy density on the side of space. One could say that space is being stretched, though it is more accurate to speak of a reduction in energy density on the side of space.

Thus, a connection between tempo and charge becomes visible. I have omitted the numerical details. The essential point is to grasp the physics of the process.

Everything around us is energy. Space is filled with energy. Forces arise where there is a change in some 'density' of energy.

To describe the WORLD, it is enough to accept that it is filled with energy. Everything can be understood through energy — its amplitude, its density, its modes of manifestation. Baryonic matter may be seen as a particular structure of energy interacting within space and along the sphere. The very fact that matter has extension and form indicates that at its foundation lies a process — a standing wave. From this process all elementary particles arise, and from it we ourselves are formed.

The world we perceive is, at its essence, energetic. And we ourselves are energetic beings. This is why we sense, feel, and comprehend only the action of energy, its changes, and its countless expressions.

A particle can also be represented by a circle with different shading. Let the region of increased energy density in space be shown with a light fill, and the region of decreased energy density on the side of space with a dark fill.

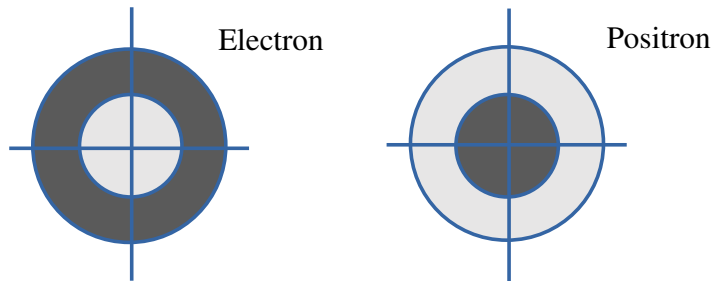


Fig. 3 Electron and positron

The masses of the electron and positron will be the same. The energy density distribution will be different. When they overlap, the particles will annihilate each other, annihilate. They'll form a uniformly distributed energy.

The question of understanding mass is connected with the amplitude of the longitudinal energy wave, as well as with the structure of the resulting configuration. I discuss this in detail in my work "*Model of the Wave Structure of Matter and the Fractal Structure of the Universe*", available at <https://zenodo.org/records/17170052>. Put simply, the emergence of mass can be seen as the result of regions with different energy densities arising in space. As a figurative example, one may think of an air bubble in water: it is separated from the surrounding medium, and it cannot be accelerated abruptly—it shows a certain inertia. In this analogy, mass is similar to such inertia, arising from interaction with an inhomogeneous energy density.

Now let us try to understand how neutral particles are formed. To begin with, let us illustrate the very moment of the emergence of a particle and an antiparticle — the neutrino. In structure, they are identical, and this is what we obtain:

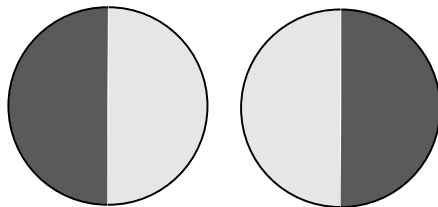


Fig. 4 The birth of neutrinos and antineutrinos

Initially, they do not differ in any way. One should expect that the surrounding energy density, pressing on their boundary, creates equal forces. As long as their central axes remain aligned, nothing special occurs. But once the axes begin to diverge even slightly, a rotational effect immediately arises:

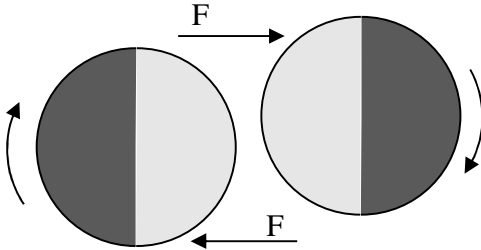


Fig. 5 Occurrence of rotation of neutral particles

All neutral particles will rotate. When they change their relative position, the direction of their rotation will also change. A neutral particle and its antiparticle will swap places. They are not permanent; they are interconnected. The only difference between a neutral particle and its antiparticle lies in the direction of rotation. It is important to note that the connection of this pair passes through a common center of mass. If the rotation of one particle is defined, then the parameter of the other also becomes known. However, they can switch their rotation parameters—the outcome depends on their mutual arrangement. This connection between the two particles gives rise to the phenomenon of “spooky interaction.” The bond through rotation does not “feel” the concept of distance. For energy defined by rotation, distance does not exist. The connection is located at a point. Einstein was partly right: if you encounter a right-hand glove, the other must be left. But in some sense he was also mistaken: the glove can switch between being left or right. It is more like mittens—if one becomes left, the other will be right.

The rotational effect of a neutral particle’s energy will create a spiral-like distribution of energy density within the particle. Since a neutral particle has increased energy density on one side and decreased energy density on the other, rotation will cause the energy densities in the surrounding space to arrange themselves in the form of a spiral.

This point is very important, as it may help reveal the fractal nature of the universe. Now let us consider the next possible particle. Suppose this is the proton and the antiproton:

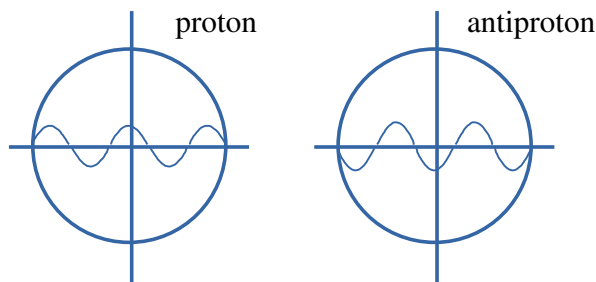


Fig. 6 Proton and antiproton

It is known that the proton consists of three quarks in the case of the simple model. However, in some experiments and theories, the proton can also be considered as a system of five quarks. The **five-quark (pentaquark) model** is used to more accurately describe the internal structure and properties of the proton, but it does not negate the **three-quark basis**. This becomes clear when examining the

structure of the proton as a wave of varying energy density. In this view, quarks are nothing more than half-waves of spatial curvature, half-waves of energy density variations in a given region of space. Therefore, quarks cannot exist independently, since the concept of a standing wave would be lost. These half-waves differ: three of one sign and two of the other. In this case, the proton effectively consists of five quarks.

The concept of the quark is very convenient for describing interactions within the atom, as it helps to explain the sublevels of electrons, describe the absorption and emission of energy in the form of quanta during electron transitions between sublevels, and allows for precise calculation and description of nuclear reaction processes.

For “charged” particles, a certain gradient of energy density variation forms at their boundary in space. The energy density will either increase or decrease. From this arises the effect of interaction between “charged” particles: like charges repel, opposite charges attract. This can be explained by the fact that the overall energy density of the surrounding WORLD seeks to minimize the distortions of density created by the particles at their boundary.

It is also important not to forget what the “charged” particle carries in its center. This is crucial. The difference in behavior between matter and antimatter depends on this very factor. For matter, at the center of a particle there will be an increased energy density in space compared to the surrounding WORLD, which will lead to the effect of gravity and the formation of macro-objects. In the case of antimatter, the process will unfold in the opposite way: all particles will attempt to move as far apart from each other as possible. At the same time, antimatter will tend to cluster at some distance from matter particles, and this will occur along the sphere.

Let us now try to understand the mechanics of macro-object grouping. Suppose there exists only a single simplest “charged” particle in space—an electron. Let us consider the interaction between the particle and space itself.

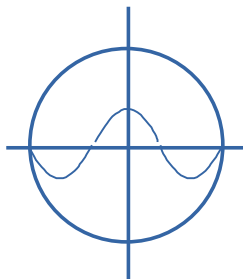


Fig. 7 Interaction of a particle of matter and space

When considering a particle as a wave (Fig. 7), one can notice that at its edges there are two symmetrical regions of energy variation. These spatial distortions balance each other, so no external effect arises from the edges on the particle. The main action is concentrated in the central region. For matter (for example, an electron), it is precisely in the region of the central half-wave that an effect can be observed which may be described as a tendency of energy to become denser. The surrounding space contributes to this process: the energy distribution of the environment “supports” the particle, maintaining its configuration in a stable state. One might say that the formation of the particle is connected with the fact that the energetic structure of the Universe tends to localize energy at a specific point. The forces from the external space acting on the central part of the particle can be schematically depicted as follows:

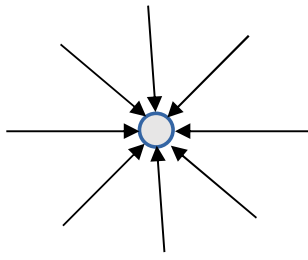


Figure 8 The result of the effect of space on a particle of matter

It is important to understand how space “responds” in order to create such an effect. What happens to the energy density of the surrounding space in this case? We know that forces arise from changes in energy density. Therefore, from the boundary of the particle to the boundary of space (recall that we assume space to be finite), a gradient of energy density is formed, which balances the forces. The gradient is crucial because it is precisely the change in energy that generates forces. **The energy density of the surrounding space does not simply settle at an average value — a gradient of density variation arises.** In the region around a matter particle, a reduced energy density is observed, regardless of the “layers” of the particle itself. This is necessary to balance the changes in its center. The outer layers form the particle as a bounded object, but the particle itself influences the entire surrounding space. Its central part leaves an imprint on the state of the environment.

This is very important. The change in energy density in the surrounding space will later become decisive in the localization of energy and the formation of a black hole. This process also underlies the effect known as dark matter. The structure of space itself does not change; what is observed is a gradient of energy density, which is distributed unevenly: the largest part is concentrated near the particle and gradually diminishes toward the boundaries of space. The unevenness arises because interactions occur between regions of different scales—the particle and the entire Universe—while the interaction remains balanced. As a result, the response from space manifests as a wave-like process, with the maximum of the gradient located closer to the formed particle. This maximum is what creates the event horizon during the formation of a black hole.

The region extending from the maximum response to the boundaries of space forms the effect we call dark matter.

A brief digression: cosmology often speaks of the mesh-like structure of dark matter, which facilitates the distribution of matter throughout the Universe. In my approach, these two entities are interconnected. The “web” is essentially the distribution of space’s response to the emergence of matter through the redistribution of energy density. Based on symmetries, this structure forms clusters of baryonic matter, creating the process that we perceive as gravity.

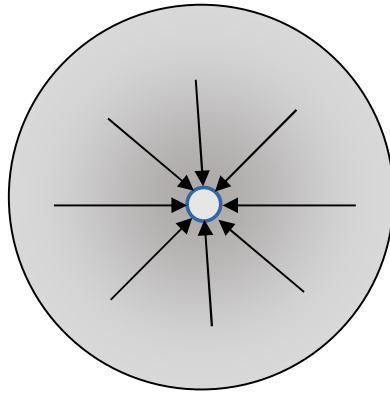


Fig. 9 Change of energy density in a region of space due to the birth of a mother particle

Figure 9 illustrates the change in energy density of space around a matter particle. When two particles interact, the region of energy density gradient extends through their common center of mass, effectively “enveloping” both particles. Around a macro-object, this region intensifies as the total mass increases. In other words, space around macro-objects forms with a redistributed energy density in the spatial dimension.

When the surrounding energy density reaches values comparable to those in the outer layers of matter particles, the particles lose their individuality. They “disintegrate,” and the energy redistributes in a similar manner but on a much larger scale. This process underlies the formation of black holes. Moreover, the process of black hole formation can give rise to the phenomenon of the Universe’s fractality. Under certain conditions, the resulting object, together with the black hole, could become an elementary particle the size of a galaxy. The region from the event horizon to the black hole may become analogous to a Universe. All of this is discussed in the work ["Model of the Wave Structure of Matter and the Fractal Structure of the Universe."](#)

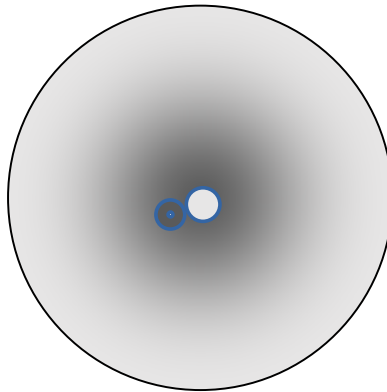


Fig. 10 Disappearance of a particle when it enters a higher density space.

Figure 10 depicts the moment of disappearance of a particle (electron) upon reaching the boundaries of a black hole. Due to the equal energy density of space and the particle’s outer layer, its boundary ceases to confine the particle’s size, and it “dissolves.” It becomes a regular electromagnetic

wave. Its central part transitions into the black hole region, while the outer layer merges with the surrounding space. This leads to a redistribution of energy between the space and the black hole.

Returning to the consideration of particles, now that the forces are defined, we can examine the interactions between particles:

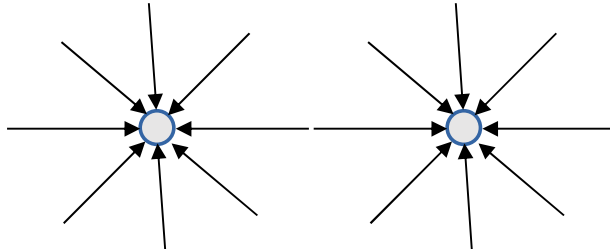


Fig. 11 Birth of gravitational force, formation of macro-objects

From Figure 11, it can be seen that between the particles (in this case, at the midpoint between them) there will be a point (for two particles it will be a line, but for three or more — a point) where the force from the surrounding space is zero. This is the location where the gradient of energy density in space is absent. The forces directed from the center of mass toward the particles cancel each other out. As a result, a net force arises from the surrounding space, directed toward bringing these particles closer together. This is how the force of gravity begins to manifest.

If we apply similar reasoning to antimatter particles, we obtain a slightly different picture. In the central region of “charged” antimatter particles, a lower energy density is observed, creating an effect opposite to the gravitational attraction of matter. The direction of the resulting forces from space changes: instead of converging toward the center of the particle, the forces create the impression that the particle “pushes” the surrounding space or tends to compress it in the opposite direction. As a result, an interaction opposite to that of matter arises.

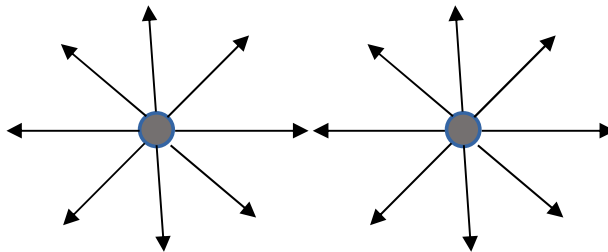


Fig. 12 Birth of antigravity force between antimatter particles.

The opposite picture becomes apparent: since the center of an antiparticle contains a region of decreased energy density in space, the resulting force is directed away from the particle rather than toward its center. Consequently, the interaction between antiparticles manifests as a repulsion from each other. By analogy with dark matter, in this case one can observe an “expansion” effect, or a conceptual analogue of dark energy, where the particles tend to move apart.

The last case remains: the interaction between particles and antiparticles:

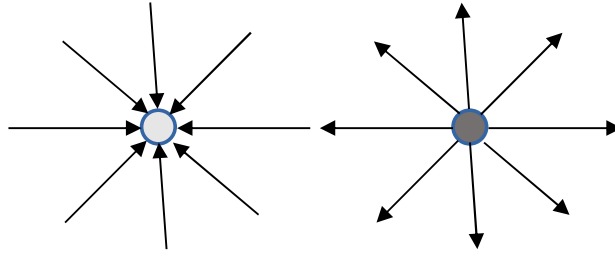


Fig. 13 Particle-antiparticle interactions

If we consider the segment connecting the centers of a particle and its antiparticle, it can be seen that the force exerted by the antiparticle through interaction with space **is balanced** by the force exerted by the particle to compress itself. In other words, there is no direct interaction between the particle and antiparticle; it is effectively compensated through the response of space. Ideally, antiparticles arranged in a spherical configuration around matter particles **balance** the uneven distribution of energy density in space. Inside such an object, a relatively uniform energy distribution is formed. However, if the “sphere” is not closed, the particles at the center continue to be attracted to the external particles and eventually merge with them.

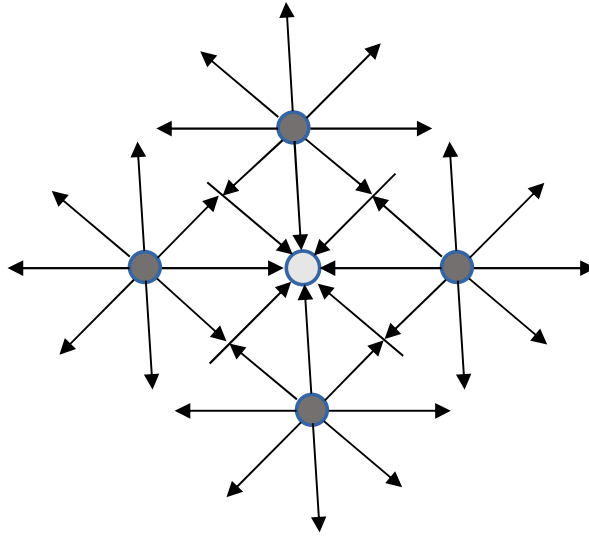


Fig. 14 Redistribution of matter and antimatter particles

A configuration similar to Figure 14, but in which particles and antiparticles swap places, would be unstable. This follows from the fact that matter particles would begin to cluster together around a common center, while the antiparticles at the center of such a system would try to disperse. Such a configuration would collapse.

During mutual interaction, particles and antiparticles will be held at a certain distance from each other. Based on the interaction principles considered, it can be concluded that antimatter does not form macro-objects characteristic of matter. Within this model, the maximum it can create is a hydrogen atom nucleus.

In reality, antimatter most likely moves toward the outer boundary — the event horizon of our Universe — where it undergoes annihilation with matter of a larger scale. The phenomenon of an accretion disk at the edge of a black hole can be interpreted as the annihilation of our matter with

antimatter of a smaller scale, at a lower fractal level. Thus, this enables the exchange of energy between different fractal levels of the Metaverse.

It was previously noted that space has a limited size. The event horizon serves as such a boundary, acting as a transition between fractal levels. On one side, matter moves toward it, and on the other, antimatter of a smaller order does the same. Why do such boundaries arise? Everything discussed above is related to the process of a wave. A key feature of wave processes is resonance, which occurs when the wavelength matches the size of a confined region. Another crucial parameter is the speed of wave propagation. Naturally, resonance and propagation speed determine the characteristic size of the region.

There is an important clarification. In classical physics, it is assumed that the properties of the medium determine the wave speed. In our case, there is no medium as such, so there is no inherent limitation on speed. Instead, the frequency of the wave process determines the speed of interactions, and the interaction speed dictates the size at which resonance occurs. In other words, we observe resonance phenomena for our fixed interaction speed. However, this does not mean that similar processes with different frequencies—and therefore different interaction speeds—cannot occur within our space.

The next important question:

– What is a photon?

On one hand, a photon is considered a particle. On the other hand, it is never at rest. Why? A photon, as a particle, must be a standing wave, but at the same time it cannot remain stationary.

Looking closely at the structure of particles, one can notice a distinctive feature — their center of mass coincides with their geometric center. In this case, any imbalance of forces caused by the energy inside and outside the particle is absent, allowing the particle to remain at rest.

However, if the center of mass and the geometric center do not coincide, the particle is constantly under acceleration, which leads to its motion. Thus, the formation of a particle during the accelerated motion of its creation process can explain the emergence of a photon.

It is known that photons are emitted or absorbed during electron transitions between energy levels. Since electrons have mass, these transitions involve acceleration. This acceleration can generate a moving particle — a photon — whose center of mass and geometric center do not coincide.

Mathematical modeling shows that a photon does not have a closed shell or boundary, which accounts for its continuous motion. The photon's boundary takes the form of a parabola, and rotation along the axis connecting the center of mass and geometric center can explain its spin.

This structure allows us to explain many properties of photons, including light polarization, its velocity, and processes occurring within complex systems such as atoms.

The Emergence of Forces. Spin. Dimensions.

As is well known, physics distinguishes four fundamental forces: gravity, electromagnetism, and the strong and weak nuclear interactions. Gravity was already discussed in the previous chapter, so we focus here on the strong nuclear interaction.

The strong force manifests at distances on the order of 10^{-15} m — comparable to the size of a neutron. In the proposed model, this phenomenon can be explained by the internal structure of neutral particles: their internal rotation of energy density. When such particles approach each other, a binding effect arises — they seem to “interpenetrate,” generating a force that holds them together.

Interestingly, observations show that a complex nucleus is smaller than the sum of its constituent nucleons, indicating mutual overlap of their internal structures. This aligns with the idea that the strong

nuclear force emerges from the internal rotation of energy within particles: local fields formed by this rotation create a binding interaction when particles come close. Thus, this concept is consistent with existing observations and offers an intuitive explanation of the nature of the strong interaction through the internal dynamics of elementary particles.

The weak nuclear interaction arises from the overlapping of proton half-waves within the nucleus. When these half-waves superimpose, an interaction effect occurs that space cannot fully compensate for or conduct without changes. As a result, the process is accompanied by the release of energy — this is how a nuclear reaction takes place. In other words, the weak interaction acts as a mechanism for redistributing energy within the nucleus, leading to observable nuclear transformations.

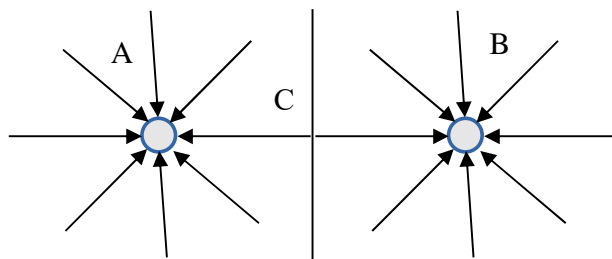


Fig.15 The birth of the electromagnetic force

Let us examine Figure 15 more closely. In space, a line forms passing through the common center of mass and perpendicular to the segment connecting the centers of the particles. Along this line, the resultant force in the spatial dimension is zero, meaning there is no change in the density of space. In all other regions, a gradient of energy density arises.

If a line is drawn through the center of particle A, parallel to the line of constant density, the region to the left of this line exerts an influence on the particle, tending to shift it toward the common center of mass. For particle B, the region to the right of its center is considered similarly. This force, directed at bringing the particles together, manifests as gravity.

The internal planes, bounded by the same lines between the particles (from A to C and from C to B), behave differently: here, the particles tend to repel each other. At a certain distance, this interaction becomes noticeable, and its strength is determined by the compression of space at the center of the particles. This effect corresponds to the manifestation of the electromagnetic force, which in this context acts against gravity.

Thus, a balance of forces emerges: gravity attempts to bring particles closer together, while the electromagnetic force tends to separate them. The common center of mass serves as the focal point of this interaction.

When the number of interacting particles increases to three or more, the line of zero energy density gradient transforms into a sphere within the spatial dimension. This sphere subsequently becomes the event horizon, coinciding with the process of space reacting to the formation of macro-objects of matter, as discussed in the previous chapter.

As the number of interacting particles increases, the electromagnetic force gradually diminishes in the spatial region because the energy of the electromagnetic wave becomes “smeared” within the spatial dimension. The electromagnetic waves begin to interact with each other, reducing their effect on individual particles. As a result, the distance between particles decreases, and the previously uniform energy density in the spatial dimension begins to change.

This interplay between the two forces — gravity and electromagnetic interaction — gives rise to all known physical phenomena. It generates temperature due to chaotic motion and the constant shift of the overall center of mass during particle interactions. This is what produces different states of matter, magnetic properties, and many other physical effects.

The electromagnetic wave facilitates the transfer of energy from the spatial dimension to a spherical dimension (if the object is considered three-dimensional). Conversely, changes in energy density on the surface of the sphere lead to redistribution of energy in the spatial dimension. The center of mass remains the common point of transition, through which energy can change both along the spatial coordinates and across the surface of the sphere.

The emergence of spin can occur for two reasons. The first is the direct rotation of energy within the particle, characteristic of neutral particles and photons. The second is the deformation of the elementary particle's shape from an ideal sphere. Since a gradient of energy density exists around the particle, and the particle itself has a finite size, the uneven influence of space on its boundary leads to a change in shape. This creates an internal imbalance between electromagnetic and gravitational forces. Such an imbalance can give rise to a rotational moment — spin.

The finiteness of space, as shown earlier, quantizes many processes, including spin. Despite the differences in particle masses, they experience the same influence from the surrounding space, so their spin turns out to be a multiple of a certain value.

Today, many say that the discovery of a fifth dimension could give physics a new qualitative leap. But what is a dimension? How and where should we look for it? And why is it called a dimension?

In mathematics, a dimension is the number of independent directions in which one can move. In physics, a dimension is a quantity that can be measured quantitatively using a physical quantity.

In real space, we identify three directions — x , y , and z — corresponding to length, width, and height. They define the extent and shape of objects and are measured in meters. The next dimension is time. In physics, it is usually interpreted as a single coordinate related to the sequence of events. Calculations, however, involve moments from the past, present, and future. This is necessary to describe the state of a system at any chosen moment.

Thus, time and space are two different types of dimensions: time characterizes the rate of change of energy, while space describes direction and extent.

When considering the structure of elementary particles, we observe another parameter — mass. It is associated with the change of energy not along a straight line, but over a sphere. It is important to note that energy changes over a sphere cannot be precisely defined using standard spatial coordinates, since such calculations involve the number π , which is irrational and has no exact boundary. Computations can only be performed with a given precision, but never exactly. Similarly, a point cannot determine direction — it is always a separate dimension. The fundamental principle is the geometry of energy distribution.

Ultimately, we can say that a dimension is defined by the geometry of energy change. Time — change at a point; space — change along a line; mass — change over a sphere. This approach provides a clearer understanding of what we call a dimension in the physical sense.

Implications.

The movement of a charged particle through space causes a redistribution of energy density around it, which in turn generates an electromagnetic wave. Particles can be considered as waves: waves have crests and troughs, which become energetically favorable points for interactions. The

transition of a particle from one state to another is therefore discrete, i.e., quantized. The magnitude of this quantization is determined by the parameters of the surrounding environment.

It is important to understand that the energy concentrated at the center of a “charged” particle gradually redistributes throughout space. This phenomenon underlies all known interaction forces. A particle is a manifestation of an electromagnetic wave, and its interaction speed is limited by the speed of light. If we decompose the motion into components—energy variation over a sphere and within space—we observe the following: the greater the amplitude over the sphere, the shorter the wavelength in space; the greater the amplitude in space, the smaller the particle’s size. This underlies the “curvature of space” effect, which in reality reflects changes in energy.

The mass of a particle is proportional to the amplitude of energy variation in space and depends on the internal structure of the elementary particle.

Considering the surrounding space from the perspective of energy, and taking into account rotational effects (spin, polarization, magnetic moment), one can explain the phenomenon of entanglement. Energy is concentrated at a point, and a point has no concept of distance. Influence on one particle automatically affects another, creating an instantaneous connection for which distance is irrelevant.

The shape of spiral galaxies follows a logarithmic spiral, whose formula is explicitly connected to the number π . This suggests that π may be embedded in the natural symmetry of the Universe, especially if spirals arise from fundamental physical processes.

Finally, there is a close interrelation between matter and energy. Energy, when forming matter, tends to create forms related to spheres, but the reverse process is also important: the shape of matter influences the distribution of energy around it. This fundamental property allows the prediction of various behaviors of energy through geometric forms.

Conclusions on the Model of Matter Structure.

It has long been known that the UNIVERSE “loves” fractals. The interaction of matter and antimatter can be seen as the creation of a wave on an enlarged scale: energy density in space becomes separated. Matter accumulates in one region, antimatter in another, at some distance from the same center of mass. When certain sizes and magnetic field values are reached, “standing” waves of macroscopic scale form, black holes appear, and spheres with uniform energy density emerge — a kind of bubble that defines the structure of a particle.

If we examine the internal rotation of a neutral particle (Fig. 5), we can see that its inner pattern resembles galaxies: the forms repeat across different scales. For charged particles, a small but massive region appears at the center of galaxies — forming a black hole. For neutral particles, a similar object exists, but it rotates continuously due to uneven compression.

Some black holes are essentially the centers of elementary particles on a galactic scale, around which energy density varies. A similar “black hole” exists in every elementary particle. It defines the center of energy compression, while antimatter moves toward the event horizon of a higher fractal level, redistributing energy amplitude in space.

Depending on the type of galaxy, one can infer the nature of the particle that forms it. For example, the internal rotation of a neutral particle generates waves that lead to spiral arms — forming spiral galaxies. Spherical galaxies may result from charged particles. Galaxy size and mass matter: they can also appear in regions of elementary particle interaction, as a consequence of standing waves.

Within the arms of spiral galaxies, energy density is unevenly distributed. Matter and macro-objects are subjected to alternating regions of high and low energy density. This affects orbital paths, core rotation speed, and magnetic fields, influencing processes within star systems. In our solar system,

signs of such changes may already be observed: increased magnetic activity, shifting vortices on Jupiter, changes in Earth's rotation speed, and magnetic pole shifts. The simultaneous occurrence of these phenomena suggests a large-scale, possibly interconnected process.

The question of why galaxies differ even when there are few types of particles is resolved through the “total mass” of a particle. Matter and antimatter distribution constantly changes due to accelerations, which leads to continuous changes in the mass of accumulations. The mass and type of a galaxy help predict the type of particle, and the fractality of the universe allows us to describe the structure of the UNIVERSE and variations in wave interactions — changes in frequency, speed, and size.

The universe can be studied through macro-objects using the principle of fractality: large structures reflect processes occurring in elementary particles. A particle is not just a point, but a dynamic structure:

- **Black holes** — points of balance, the origin of the birth of dimensions.
- **Jets** — a mechanism for redistributing energy between dimensions.
- **Event horizon** — the boundary of a dimension.

Quantization through Waves

Energy is not quantized by itself; it is organized into quanta through the process of matter creation — waves. Quantization arises from the wave process, repeating across all levels — from particles to the universe. If we consider each particle as a “micro-galaxy” and galaxies as “particles” of a larger scale, then:

- **Black holes** — points of matter transition between scales.
- **Jets** — mechanisms for redistributing energy between levels.
- **Event horizon** — boundary of systems.

Beyond the event horizon of each particle, its own universe forms, where energy density is higher, and the speed of light appears altered to us.

Fractality and the Shape of Matter

The shape of matter creates energy distribution around it. Space surrounding an “imperfect” shape tends to balance it into a sphere. This effect is observed even in architecture: pyramids, especially at a height of 0.25 from the base, may generate variable magnetic fields, affecting energy inside and outside the structure. This principle may also operate in biological systems — for example, the heart may generate electrical impulses through shape changes and internal energy processes.

UNIFICATION.

An attempt was made to construct a mathematical model of the wave structure of matter. The work was published at: <https://zenodo.org/records/17249693> — “*A Model of the Wave Structure of Matter and the Fractal Structure of the Universe.*”

Using only the constants of the speed of light and π , the following results were obtained:

- the possible number of stable elementary particles — 4 of matter and 4 of antimatter;
- the mass, size, and wavelength of the elementary particles;
- the value of the elementary charge;
- possibly, the fine-structure constant represents the influence of gravity on electrostatic interaction — a kind of “viscosity coefficient.” If this constant truly remains constant within our Universe, it may be connected to the level of fractality;
- using the fractal formula and the theoretically derived parameters of the neutron (mass and size), one can obtain parameters of higher fractal-level structures — values close to those of the Milky Way.

The Physical Structure of Particles

Elementary particles possess an interacting wave structure. An electromagnetic wave propagating over a sphere creates a field in space — a longitudinal wave of energy that binds the internal components of a particle. The center of mass can be seen as a point — a source of energy and force. The spatial limitation of this energy gives rise to the perception of mass, distinguishing the object from its surroundings, yet keeping it in constant interaction with them.

Human Being and Consciousness

Human consciousness is connected with a “point” — the sense of “I,” existing here and now, which is analogous to physical time. The subconscious reflects accumulated experience — an analogue of size in the physical world. Self-reflection, the ability to observe one’s own thoughts, emotions, and motives, corresponds to an electromagnetic wave — observation from the outside, around oneself. Together, these three components create Personality or Mind. Although the Personality seems spatially separated from the surrounding World, a constant and inseparable connection exists between them. Personality is a kind of *standing wave* of the Spiritual World. Intuition arises from this interaction — it is the result of *resonance between spiritual dimensions*.

Dimension — The Subconscious

Looking slightly ahead, I would like to touch upon the topic of the **subconscious**. In my understanding, the subconscious — as a dimension of the Spirit — can be seen as an **analogue of spatial dimension** in the physical world. There have been previous attempts to divide consciousness into its components, yet here I intend to do this differently — through an **analogy between the physical world and the world of the Spirit**.

What do we know about space? It is defined by three coordinates — x , y , and z , or length, width, and height. These coordinates are mutually related by a 90° angle. Theoretically, any object may be rotated within space at different angles, yet **the internal vectors of its coordinate axes** remain governed by definite rules.

Now let us apply the same principles to the **subconscious**. This will later make it possible, by using well-known physical laws, to build a foundation for **studying Personality**.

The first thing that comes to mind is that the subconscious is inevitably connected with **fear**. Fear is something that acts automatically, often without conscious involvement — much like reflexes. Therefore, **fear** may be regarded as the **first coordinate axis** of the subconscious.

Secondly, the second axis must be **independent of fear**; otherwise, the system would be degenerate. This axis should define direction not through reaction, but through deliberate orientation. Such an axis, in my view, can be **life values**. They are formed under the influence of family,

upbringing, education, and society. At times, these values lead a person to act **in defiance of fear**, overcoming instinctive constraints.

Thirdly, it remains to define the final coordinate. In my earlier reflections, I mentioned that a person is defined by **aspiration**. Aspiration arises as a result of the interaction between the first two coordinates — fear and values. **Aspiration** is thus a derivative of their relationship, a direction of motion determined by their mutual influence.

Consequently, the **subconscious** can be viewed as a three-dimensional system whose axes are **fear, life values, and aspiration**. It is not yet clear in what units these quantities could be measured, yet the **logic of such a structure** seems entirely reasonable.

By analogy, one can probably also decompose the **superconscious**, which emerges as the result of **self-reflection** — a process comparable to an **electromagnetic wave**, integrating the three dimensions into a single dynamic field.

The Meaning of Life

The meaning of life can be seen as the **complexification of a system** and the **development of its underlying energetic dimensions**. For a human being today, this primarily means the growth of **self-reflection**, and as a consequence — the development of **intuition**. This path cannot be completed instantly; it requires experience, mistakes, and the accumulation of knowledge. Only under certain conditions does a **coherent structure of personality** emerge.

Since each of us is capable of perceiving the three-dimensional world, we are already **distinct elements** of a greater system. Life allows us to “build up” our level of intuition — our degree of connection with the **universal resonance**. It gives us the opportunity to evolve, and only we decide whether we will take it or fall back to a lower level.

This process can be compared to the **formation of elementary particles** — the structures must be similar in principle. There may exist four stable types of particles and antiparticles. Studying personality from this perspective is undoubtedly difficult, yet such parallels can, I believe, be drawn. Self-reflection is capable of revealing **inflection points**; by knowing their number, one may determine the type of “particle.” In the future, psychology might be able to classify personality types using such an approach. These points could be identified by examining the three subconscious axes — **fear, life values, and aspiration**.

For self-analysis, I chose the **axis of fear** — it is the most prominent one in me. Fear is the foundation of human vices. In studying myself, I discovered at least three distortions associated with vices — **pride, greed, and anger**. These are the points of inner tension that I now constantly observe.

If my reasoning is correct, then in the spiritual dimension I represent either a **neutron** or an **antineutron**. The determination of this affiliation probably depends on the **inner core**. It can be understood by the nature of one’s “attraction” to people: matter tends to move toward society, while antimatter disperses, staying nearby but at some distance. However, in the case of a neutron, things are not so clear-cut — it can manifest itself either way.

In conclusion, I would note that our **vices** are both our **weaknesses** and our **potential strengths**. Under the right conditions, they become the very force that drives our development. Much depends on the environment. A human being is like **light** — by interacting with others, one can ascend to the next stage of evolution, reaching a state analogous to the **formation of particles**.

Dimensions

The question of dimensions is one of the cornerstones in understanding the world. It is significant not only for physics but also for philosophy, as it touches upon the nature of perception and existence.

This topic is explored in my three works:

- *“The Birth of Dimensions as a Consequence of Fractal Resonance”* - <https://zenodo.org/records/17404334>
- *“The Hypothesis of Wave Equilibrium: The World as the Wave Equilibrium of the Zero State”* - <https://zenodo.org/records/17404394>
- *“The Unity of the Wave: Matter, Energy, and Consciousness as Aspects of Frequency”* - <https://zenodo.org/records/17407224>

In these works, an attempt is made to describe the structure of the universe through wave processes. For a wave itself, the concepts of space, time, and mass are not essential — they can merely be forms of its interactions. A wave can exist even at a point, as a process of energy transformation. It defines time by its very existence, while the interaction of waves with one another creates interference patterns where frequency differences and phase shifts manifest.

An interesting case arises when one frequency exceeds the base frequency by a multiple and includes the additional factor of 2π — that is, the emergence of a wave relative to the initial one. This process is capable of preserving the notion of balance — the very foundation from which the WORLD emerged. It can also explain how we perceive the world geometrically: each new dimension is the result of rotation around a center according to certain rules. The number of such nested processes relative to the base frequency can be viewed as the number of dimensions. Thus, the familiar categories of time, space, and mass can be seen as manifestations of interacting waves. Mathematically, this process has no limits.

What is a black hole? From known physics, it is understood that inside it time stops, the concept of size ceases to exist, and it is associated with the notion of mass. It is also known that there exists a center of mass which itself possesses no mass but is the result of interaction under the influence of gravity. Therefore, a black hole can be seen as the balance point of ongoing processes — a place where dimensions are born, a point of convergence of dimensions, a node of resonance.

When transitioning from one dimension to another, we obtain a formula that also reflects the process of fractality:

$$v_n = (2\pi v^2)^n, \quad n > 0, \quad n \in \mathbb{Z}$$

This leads to an interesting conclusion: the frequencies of the smaller elementary particles, which should form within our existing elementary particles, are commensurate with the new frequency of the emerging dimension. In other words, it is precisely there that a new dimension is born.

How else can this be approached? Inside our elementary particles, there exists their own black hole, which rotates around the black hole of our galaxy. Thus, what we geometrically observe as the rotation of the balance point of our matter around the galactic black hole (the larger balance center) is, in fact, the geometric manifestation of the birth of a new dimension. This means that the fourth dimension lies within us — inside each elementary particle of which we are composed.

From this, it can also be said that lower-level elementary particles are capable of redistributing energy between higher-level particles, effectively playing the role of “virtual particles.” For example, comets moving from one galaxy to another can alter the total mass of a galaxy as a whole, thereby affecting its parameters — size, velocity, and mass.

Thus, the boundary between the material and the spiritual arises. It is worth noting here that the foundation of the physical world is *ideality* — forms strive toward ideal concepts such as a point, a line, a circle, or a sphere. Physics relies on these ideals when constructing its theories. Personality, on the other hand, forms through the opposite — *non-ideality*. Imperfection within certain limits becomes the source of self-awareness.

This approach allows us to explain the emergence of the concept of dimensions. The structure of the wave itself and its possible interactions can explain everything we observe, without introducing additional entities. The birth of time, space, and mass can be understood as the wave's perception of various resonant relationships with surrounding wave processes.

This easily translates into geometric perception, since in our understanding the sine wave is usually associated with circular motion:

- first, a simple point — time;
- rotation around the same point (an increase in the rate of change by a multiple of itself — rotation around one's own velocity) produces a circle — a plane; this corresponds to an increase in frequency by the same factor;
- rotation of the circle around an axis passing through the same initial center (a further increase in the rate of change — transforming the previous frequency by the same factor again) produces a sphere. Here we obtain the resulting frequency as the base raised to the fourth power — remarkably close to the value of Planck's constant at our speed of light.

This process can continue infinitely, but the principle should now be clear.

Thus arises the *fractal organization of the universe*, where each new dimension is a nested rotation and resonance of the previous one. This approach does not deny the phenomenon of the “Big Bang.” On the contrary, it suggests that such processes occur continuously, on all levels of existence. Their significance becomes secondary — a particular manifestation of a more general wave principle.

Such a perspective is capable of uniting different observations and human interpretations. Each viewpoint is, in its own way, correct in saying that our world is merely a shadow of something greater. We are likely far from full understanding, and black holes serve as an example of that. Those who claim that the world is a hologram are also right — in essence, everything we see is wave interference, and that is precisely the essence of a hologram.

A particularly interesting question is how an individual frequency can increase. In conventional physics, a wave does not alter the properties of the medium — for instance, a sound wave cannot change the density of air enough to “allow” itself to travel faster. But if the medium is itself sensitive to the wave, a nonlinear process emerges. Since the medium *is itself* a wave, feedback arises through resonance.

In such a structure, considering the mutual influence of consciousnesses upon one another and their interaction with the medium, under certain conditions, the individual frequency can increase or decrease — potentially achieving a new stable state of *fractal resonance*.

Since life is defined by a single reference frequency, the material and spiritual worlds are inseparably connected, allowing them to interact through the same fractal resonance. Yet this interaction does not necessarily require spatial proximity. Consciousness, therefore, does not have to be tied to a specific physical object or form at a particular place or time — though such a connection may exist. It can likely exist even without a “rigid coupling” to matter.

We observe similar behavior in the physical world — not every physical object exhibits consciousness.

Finally, the frequencies of the *spiritual world* must be higher than those of the material. Thus, through matter, one can only *feel* the influence of higher frequencies; it is impossible to capture or “photograph” their image directly.

Of course, human consciousness most likely has no boundaries. Sooner or later, a method may be found to register higher frequencies — after all, there are people capable of perceiving what we call the *paranormal*. Yet one must be cautious: influencing waves can lead to resonant effects, altering the surrounding world — of which we ourselves are a part. Any influence upon another inevitably reflects back upon us. Therefore, one should not wish harm upon others — the “boomerang law” unexpectedly finds its physical explanation here.

Thus, matter and consciousness turn out to be different expressions of the same frequency — different phases of a single wave unity.

Life is a manifestation of the interaction of opposites. If the material world can be viewed as a wave process, then consciousness is likely a state of stability — equilibrium. It is this balance that becomes the source of all that exists. Consciousness is aware of dimensions because it creates them itself. It is the origin of all waves — the very “black holes” for which neither time, nor mass, nor size, nor any other dimensions exist. Consciousness is capable of accelerating, perceiving, and creating reality — entering into resonance with the surrounding world.

The Soul

What is the soul, and where is it located? I believe that the soul is the source of energy — and in physics, such a source can be represented as a point, the center of mass. Since the physical and the spiritual are inseparably connected, this point must be one and the same. It has no mass but serves as a source of energy. The body has weight; the Spirit has aspiration.

In this sense, everything in this world possesses a soul — or, as we sometimes say, “made with soul.” Considering that there is only one true force in this Universe, we may also say: “*Everything is made with Love.*” Love is the only force in the Universe.

Esoteric and Paranormal Parallels

At the foundation of the physical world lies the phenomenon of *resonance*, through which all processes are interconnected. It is also responsible for one of the strangest effects — the entanglement of quantum particles. If we look at people, we can observe something similar: close individuals, especially relatives, are sometimes able to *sense* or *foresee* events happening to each other. This may be related to what is popularly called the *Universal Database* — when someone unexpectedly receives important information, we call it *intuition*.

Another point worth noting:

1. The physical world — three dimensions (space, time, mass).
2. The spiritual world — three dimensions (consciousness, subconsciousness, superconsciousness).
3. In the physical world, each dimension has three coordinates.
4. The spiritual world consists of three coordinates: fear, life values, and aspiration.
5. The connection of worlds: *Body – Soul – Spirit* — again, three components.

If we think deeply about it, life resembles the process of knowing oneself through a *mirror*. Life is the process of the Spirit knowing itself in reflection — in *the physical world*. The Soul serves as the point of reflection. Life is the mirror of the Spirit. Death only breaks this connection but does not destroy the essence. In the physical world, form disintegrates, but the elements continue to exist — and thus, the Spirit must also continue to exist. Perhaps death is merely the instant of a blink: you close your eyes — the image disappears; you open them — and are born again, continuing the path of self-knowledge. There is no other way to know oneself.

Sometimes fear can cause death — as if one “blinked” a little earlier than usual. But it is important to remember: this is only an *allegory*, a philosophical image — not a call to action. To “blink on purpose,” hoping that everything will change for the better, is pointless — you cannot escape from yourself. Death is not an exit and not a way to improve life, but a natural stage that comes in its own time.

As stated in the introduction, this work does not address religion or morality — they are vast and essential fields. Without them, the “engine” would not run. This perspective does not justify cruelty or recklessness. To intentionally act against life is to destroy one’s connection with the World — to lose *resonance* with it. That is how unstable elementary particles end their “lives”: as mere ripples, descending to a lower level of existence. This may be the true essence of what we call *karma*. Life is priceless — its purpose is to live, to evolve, and to understand, not to end in the hope of an easier beginning.

If we look at humanity today, we likely share approximately the same level of intuition. There are, of course, small differences, but overall it is quite similar. I believe some are already capable of seeing deeper — what we call *paranormal perception*. Perhaps among us are those who are slightly ahead in their development. It resembles the process of blind kittens gradually opening their eyes: some sooner, some later. Our life is but a nursery. Surely, there are those who “watch over” us.

Finally, if the structure of elementary particles truly corresponds to what has been described here, this may scientifically explain the possibility of “subtle bodies” known in various philosophical and esoteric teachings. The fractal nature of structure could account for the existence of such a hierarchy.

AFTERWORD

Everything stated below does not claim to be the ultimate truth — it is merely my personal opinion, my own life choice.

In conclusion to this work, I would like to offer one more analysis. In the final chapter, it was said that the meaning of life lies in development, with emphasis placed on increasing one’s own frequency. However, from a mathematical point of view, this is not strictly necessary. The essence of development lies in the cognition of new dimensions of oneself, and to achieve this, one must learn to change one’s frequency — to work, one might say, on several frequencies simultaneously.

When we are born, we set our own initial frequency, and from that moment two possible directions of development exist — either an increase in frequency or its decrease. These are the two ways of manifesting oneself in our WORLD: the development of civilization and science — the manifestation of our frequency in the material world, and hermitage — the reduction of one’s manifestation in the material world.

Of course, mere existence within these directions does not in itself lead to development. One can follow the rules of a particular way of being, yet never “be born” inwardly. Imitation is not growth. Both paths are valid, both can lead to development; neither is better nor worse. A change in frequency, in one direction or the other, is the process of self-discovery. The notions of “increase” or “decrease” are relative — it depends on what the change is measured against: either in relation to oneself, or in

relation to the surrounding WORLD. Thus, development can be divided into spiritual and material. Regardless of the path, life itself gives the opportunity for growth.

These two paths may symbolize the interaction between matter and antimatter. Neither is superior; the process is mutual. One gives rise to the other; neither can exist without its counterpart. But the source of both lies in the center — the black hole. Similarly, a human being contains within a center that gives birth to various forms of self-expression. Science, faith, creativity, solitude — these are what revolve around a person, around the center. A human is, in a sense, a black hole — a source.

One can accelerate in either direction in search of truth, but mathematically, neither increase nor decrease of frequency has a limit; it is impossible to reach zero, balance, stillness. Truth lies somewhere in between — it is always in the middle — it *is* the human being. The more we create in any direction, the more we learn to shift our frequency and speed, the more deeply we come to know ourselves — the center, the stillness. Life is the process of studying oneself.

What matters is not a specific path, but everything together — not religion alone as something separate, not science alone as something separate. Each, on its own, has brought both good and bloodshed; it could not be otherwise — life itself is a wave, the reflection of us. Every person contains both good and bad. The desire to make oneself “holy” gives birth to pride. A person must learn to know themselves, and this will inevitably manifest in external life. The reverse is also true: the more one understands the realities of the world, the more one comes to know oneself.

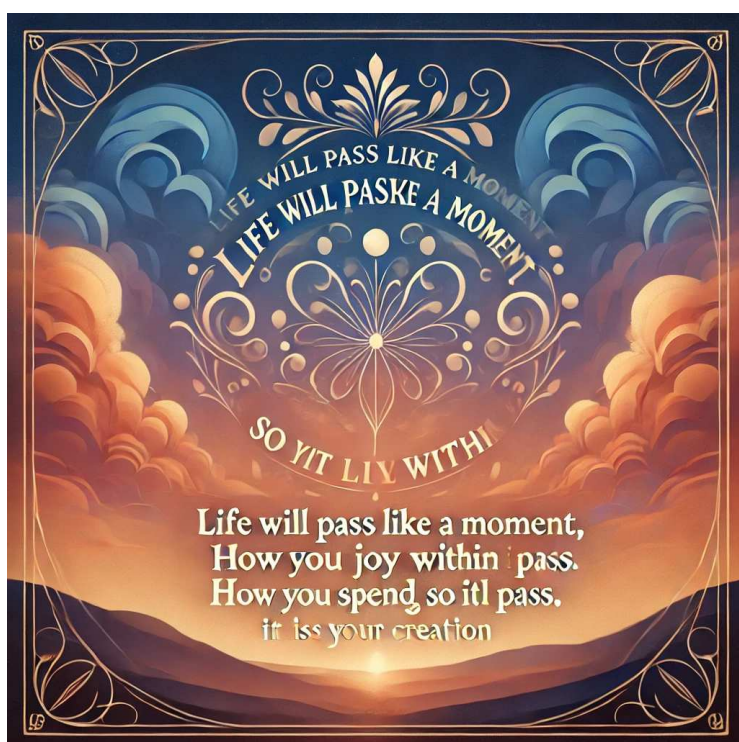
Our fears are natural limiters and also our revealers. The fear of death drives us forward, forcing us to choose one or another direction of development — to make a choice. But if we do not make it, a person remains something like a photon, driven by their own fears. Greed, pride, anger, and other human vices are, in a sense, manifestations of the photon within the realm of the spiritual dimension. Sooner or later, several such manifestations, through interaction, can give rise to a stable particle — or more precisely, a pair. Though they may be drawn toward different centers, they are nonetheless connected in one way or another. And most importantly, at their very core they contain a point — a black hole or its antipode, a sphere surrounding that point — again, a kind of center emerging from the point itself. The birth of a particle *is* development. But even formed particles are subject to external influence — the force of gravity drives them toward their centers. Matter and antimatter are manifestations of a single process; one cannot exist without the other. Their direct interaction leads to the release of energy and the destruction of particles — annihilation. Awareness of one’s opposite and acceptance of the validity of each path form the structure — the framework — of the WORLD. Acceptance of oneself and of others creates resonance, stability, calmness, and at the same time, motion.

Thus, together, science and religion are capable of overcoming fear and stabilizing the human being, yet separately, they are capable of destabilizing him. Each has its own methods and its own mistakes. Truth is hidden only in what unites them, not in what divides them. To find it, one simply needs to analyze both and discover what connects them — this is the manifestation of **LOVE**. Nevertheless, each of them must follow its own path; the disappearance of one or the other would disrupt the balance. The development of one must be accompanied by transformation within the other. Both directions must be preserved — they form equilibrium. Together, these two structures create the conditions for the further evolution of the human being.

Blind faith or blind disbelief do not allow one to find peace. They are manifestations of fear that drive us from one extreme to another. Awareness and understanding of both give us the ability to stabilize, to calm down, to feel love and unity. Heaven and hell are not places, and one cannot *arrive* there. They are indicators of our attitude toward and acceptance of the WORLD. The feeling of satisfaction and harmony with the surrounding world is the manifestation of **HEAVEN**, while its opposite is **HELL**. A person’s ability to maintain balance is the measure of how close they are to heaven. Accepting oneself as one is, and understanding the actions of others through awareness of the

processes taking place — this is the emergence of resonance with the WORLD, the manifestation of another equilibrium. One can be in heaven while alive, just as one can be in hell. It all depends on our attitude. Heaven and hell are not places, not times, neither life nor death — they are everything together, they are our state of being. Death will not change that state; it is formed during life. Death is merely a temporary interruption in the process of knowing.

Love your life — at least because it is more pleasant to live that way. A life dominated by negative feelings loses meaning. Do not waste your existence on despair, disappointment, or anger. Strive to filter out the bad and retain the good — the Mind is capable of this. Yes, there will always be both good and bad, but it is precisely this duality that allows us to value and love life. The perfection of the world lies in its imperfection. Perfection is a trap. The world is created with great wisdom. There is no good without bad. You yourself are the force that can create a wave through your duality. You change the world around you. Let it be the one you love.



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