Reality, the EGO and Kindness

Considerations on the fabric of reality, the EGO and the purpose of existing.

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Introduction:

My intention in this short piece is to propose a journey.

A journey in stages towards the construction of a model that can take the reader by the hand and lead them to gently explore a new point of view on life and the meaning of all things. Subtly pulling aside the veil that discreetly covers the scenery of the universal theatre created for us and in which we unwitting actors operate.

At a first reading, it may prove difficult to understand how that's compatible with the topics being discussed, but my hope is that in some way, even just for an instant, the true and underlying purpose of the piece, which has nothing to do with considerations on the nature of reality, might appear.

I believe it's essential to touch upon a pivotal point of my thinking, which I often repeat to myself, and which I consider necessary to share before starting.

During my studies, I have to admit that I was often unfortunate enough to come across texts written using convoluted language that was difficult to comprehend.

I don't think that alone makes a work either cultured or important. I think quite the opposite is true.

If I were standing before you, I would be smiling as I said it. Intelligence simplifies, it never complicates. A good mathematician is able to glimpse recursive structures and patterns where others see only numbers; however, an excellent mathematician also manages to find new ways to simplify complex problems, in order to solve them.

A great mathematician, in my opinion, manages to simplify problems that are too complex for most of their colleagues.

I don't think this concept is sufficiently clear and, indeed, it's often totally ignored. In areas outside mathematics, I often see publications

on relatively simple subjects made artificially complex. More than is warranted. It's as if making the text more difficult and less accessible you ennobles the work done, making it seem important in some way.

Hiding behind the artificial complexity of a text's constructs and syntax doesn't make the work more interesting, significant…. or intelligent. In my opinion, the opposite is true. A model can be considered elegant when it's shorter and simpler compared to more complex explanations regarding the same content.

Furthermore, given the effective semantic scanning algorithms now available, I believe that time is running out for the pointless, artificial and inflationary complexity of constructs, as well as the spasmodic search for the most complex, remote and ambiguous noun in terms of use and meaning.

I believe that if future artificial intelligence shall ever be able to rationalize content on a par with humans, it will find this all very amusing...

I will therefore try to simplify my concepts as much as possible and if, despite this attempt, you still find them incomprehensible, it will not be you who do not understand, it will be I who did not explain them properly.

So, the time has come to begin. Ladies and gentlemen, this way, please…

CHAPTER 1

CONSIDERATIONS ON THE NATURE OF REALITY

1.1. A CONSISTENT REALITY - A MATHEMATICAL REALITY

The first point we need to consider, the first brick of the building I'm trying to construct, regards the nature of Reality.

Therefore, we need to ask ourselves what the Nature of Reality is.
Leafing through a dictionary, we come across a few definitions.

a) Reality:
"A fundamental concept that summarizes the quality of anything in as much as it "exists", objectively or subjectively."

The same source, Google Dictionary, provides us with a second definition, which I think is simpler and which I prefer, naturally.

b) Reality:
"Any real thing or the sum of all real things (as opposed to *inventions, dreams, possibilities, imagination,* etc.")

If I had to give a summary definition of the meaning of Reality, I think that my personal definition might come close to this last one. That said, I believe that the question "What is the nature of reality" is, in some way, poorly put by default.
I believe that a few considerations need to be made before attempting an answer. However, I'd like to try the hard way.
Firstly, I'd like to express my point of view and then attempt an explanation.

As stated in the title of this chapter, I believe that the Reality in which we operate is, to all intents and purposes, of a mathematical type.

More specifically, I think it's comparable to a mathematical system, consistent.

I've never heard other authors consider reality like this, therefore the following is a personal interpretation. Except, perhaps, Professor Max Tegmark's one. Indeed, my view of reality is very close to what he says.

Tegmark begins with the assumption that there is a completely autonomous and independent physical reality with respect to mankind and its verbal language, and that this reality can only be described through a pure relationship of abstract concepts. Indeed, he states that: *"our universe is not only described by mathematics: it is mathematics"*. To quote his own words, *"we have to believe in what I call the mathematical universe hypothesis: that our physical reality is a mathematical structure"*.

My point of view is very similar, but it's based on a subtly different assumption.

I believe that Reality is based on logic. Logic is the basis, the fundamental substrate that constitutes the foundations of reality itself. That being so, based on logic, a circumstance that is true can never be false at the same time. Exactly like a consistent mathematical system.
In other words, any circumstance that occurs in the context of our continuum (therefore something that has happened and is true by definition) cannot also: "not have happened".

The Pythagoreans used to represent numerical quantities using pebbles or "calculations". The words "calculation" and "calculate" derive from this custom. So: if we pick up three pebbles, they will always be exactly three, never two. This simple truism can be written using mathematical language and is demonstrable. This circumstance is therefore true and cannot at the same time be false.

If that were not the case, then 3 pebbles would be equal to two and the two could be equal to one. If the system were not consistent, then it would prove falsehoods on integers because from the moment a false statement is proved, according to the rules of the system, we would have an infinite number of falsehoods deriving from it. In other words, if 0 were =1, then it would be equally true that 2=3 and that 1=2 and so on. Similarly, the 3 pebbles in our hand would no longer be 3, but 2 or 1, or any other number you can think of. The same would apply to any other aspect of reality.

In a universe devoid of consistency, where the anarchy of natural laws reigns supreme, where logic isn’t observed and anything can be its opposite, I don't believe that the development of life would be possible.

I believe that such a universe cannot exist, regardless. Like a mathematical system that proves falsehoods, lacking consistency, it would implode in an instant, disappearing from the realm of reality along the entire bidirectional arc of its very existence. Not consistent = non-existent. Just like a mathematical conjecture that is proven to be false. It would not be consistent and therefore would not exist.

X is true because there is proof of X;
X is true and therefore there is a proof of X;

Therefore, we must necessarily deduce that the system that we call natural Reality, within which we operate, is entirely consistent.

At this point, I believe it is necessary to reconsider the "Anthropic Principle" in an even stronger version.

(Digression on the anthropic principle: excerpt from an interview with Piergiorgio Odifreddi)

"The hypothesis of the "anthropic principle" was put forward by Barrow and Tipler in this book which appeared in the United States in 1986. According to this theory, everything revolves around an unavoidable nucleus: if an alarming number of extraordinary coincidences in the form of physical laws and in the values of the constants of nature did not occur, biochemistry, life and intelligent life would not be possible. Not only would a universe taken at random not allow life, common astronomical objects and ordinary matter would not be possible, either. Starting from this observation, we come to the conclusion that there is a need, and the weak anthropic principle, which stops at the acknowledgement of the facts, evolves into the strong one".

Excellent, I can only state that I agree with the above. However, a consideration now appears due.

A new version derives from the latter, strong version, one that is even stronger because there are not only an incredible series of coincidences at the level of natural forces that decree our existence, but above all because this further and more extreme version of the same principle evolves from the much more profound necessity that the very nature of reality is such as to allow everything to be (and continue to be) what it is, and not its opposite. In other words, to allow life (and this very discussion), the very construct of reality must not only involve incredible coincidences on the effect and quantity of natural forces, it must also and above all allow that consistency be always guaranteed. Because, as discussed above, any other alternative would not have allowed not only the existence of life, but also any other natural aspect.

This new version, which no longer analyses the mere interactions of physical quantities with each other, but the very fabric of reality, could be termed the:

“**Ultra-Strong Anthropic Principle**”

Life and reality itself are as they are, and exactly so, precisely because we are here to witness them and to talk about them. This incredible luxury is afforded to us precisely by what I define as the only possible conformation/configuration of reality. The only one that gave rise to the flow of events, to history, which brought us here and which was able to create its own observers within itself.

Last, but not least. This consideration also provides a contribution to the dispute over the "unreasonable effectiveness of mathematics".

From Mario Livio (God is a mathematician): “In a Universe identified through mathematics, the fact that it fits nature like a glove should not be at all surprising”.

In the light of a consistent nature of reality and its logical functioning, like a mathematical system, I think it is evident that this dispute is resolved in favor of the fact that mathematics is not simply discovery. We are inside it.

“The eternal hourglass of existence is turned upside down again and again, and you with it, speck of dust!”

- F. Nietzsche

1.2. INFINITY AND OMNIPOTENCE... THE LIMITS OF OMNIPOTENCE

To address this issue, let me propose a thought experiment.
In this theoretical experiment, I'll postulate that Reality is to all effects a consistent mathematical system and within this context we suppose the existence of an almighty God.

That said, the first question that springs to mind is whether Omnipotence has limits of any kind.
Although it may seem a contradiction in terms, I believe it's not and deserves further investigation.
We have identified Reality as a mathematical system and, in the mathematical world, there is of course the concept of infinity. Even if elusive and ambiguous, it's consistent with the mathematical environment in which it persists.
At the same time, it can be compatible with the existence of various limits. Although infinity is infinite, it can be limited at the same time; even finite. A line segment, although limited in size, contains an infinite number of points and can be assimilated to a one-to-one (i.e. bidirectional) relationship of the same type of infinity represented by a line without limits in terms of length. When dealing with infinity, we enter a new territory, one that is different from what we are used to and which results from the sum of our finite experiences. One of the properties of infinity is that a part of it is as large as the whole that contains it and of which it is a part.

Therefore, even infinity can be limited.
It may be difficult to conceive, or to imagine, but my opinion is that there are effective examples that can be used.

Imagine a small river.
A small brook, whose path is lost in the continuous and ambiguous mists of infinity. A stream that is small in size… but infinite in length. So long that even with an infinite amount of time available, it would be impossible to reach the end…

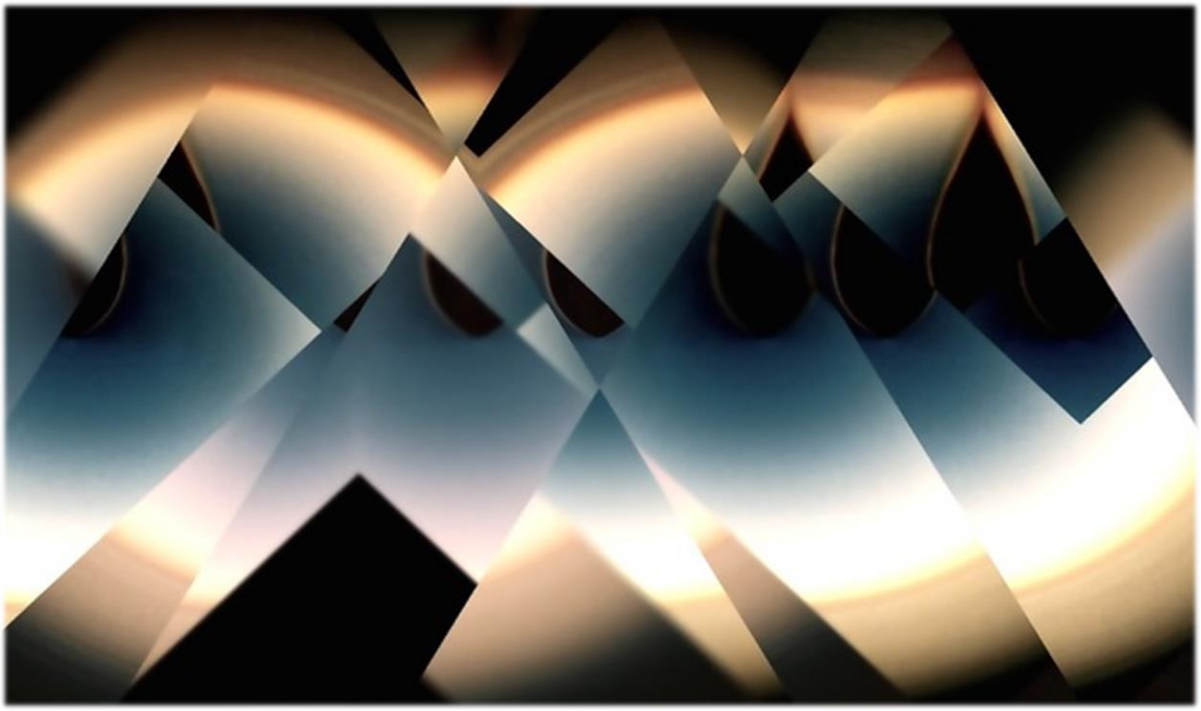
If such a waterway really existed, over time the water it would generate could fill the entire Universe. Even two Universes or three or... infinite Universes. The same would apply to an even more slender waterway...
This narrow stream of water, its flow limited to its riverbed, its width limited to its size, could fill infinite Universes with water...
The example partly mirrors the logic of the famous example of the infinite Hotel.
However, compared to that one, I believe that the emphasis is above all on the limited size of the river, which is the fundamental point on which I would like to focus the reader's attention.
An infinite, but at the same time... limited entity.

There are similar examples in mathematics.
A segment is made up of as many points as there are points in a square constructed on its side.
To each point on the perimeter of the square corresponds, one-to-one, a point on one of its segments, which is nevertheless part of the square itself.
This can occur when you start thinking in terms of infinity.
Infinity is an entity so powerful and, at the same time, so elusive that it lurks everywhere and its mental evocation alone decrees its existence even where it seems impossible.
Infinity can arise out of nowhere, as if from a compensation of sums. It can arise from Zero as an infinite compensation of additions and subtractions; however, once the zero has been rewritten in this way, what results becomes indestructible since the sum of two infinities of opposite signs no longer results in zero. Therefore, infinity exists (potentially) everywhere, and once it begins, it’s unstoppable.

If reality, being based on logic, is comparable to a consistent mathematical system, then in this mathematical representation God could represent Infinity.
Cantor passed away in the throes of schizophrenia trying to prove the hypothesis of continuity and towards the end of his days, he began to

say that his work had been commissioned directly by the Lord... who had entrusted him with this sacred mission and of whom he was an emissary.
I would not be surprised to find that Cantor, despite his illness, had simply glimpsed and sensed a similarity between the concept of God and the concept of Infinity.
In the same way, I wouldn't exclude that he had sensed the relationship between Nature and Logic as a system of a whole.

Although there are different classes of infinities, in this particular case, I believe it's clear that I am making freely inspired parallels with respect to the characteristics of Aleph-null infinity.



Lunatic (Instrumental version)

https://www.youtube.com/watch?v=FLEUYHzXbu4

1.3. LIMITS TO THE POWER OF GOD

Could God therefore intervene in daily affairs by erasing wrongs, by modifying events?

By bending natural laws to His will to prevent the occurrence of painful natural events?
I don’t believe so. I'd rather be inclined to assume that He can't... allow Himself to do so.
Yet God, in most religions, is meant to be endowed with omnipotence. How could an omnipotent being be prevented from being able to actively intervene in our daily reality?

We’ve already seen how reality itself, based on logic, is in all respects comparable to a "consistent" mathematical system.
When it’s possible to demonstrate a contradiction, i.e. a paradox, in a mathematical system, the system is proved to be inconsistent. Therefore, its relevance in the world of mathematics ceases. It loses its existence in an instant and effectively ceases to exist mathematically. It’s as if it had never existed over the entire span of time.

Therefore, considering reality as an extensive consistent mathematical system, if God were to intervene on our reality by subverting any physical law even for an instant, He would create a contradiction; "an absurdity", incompatible with the logical reality of the Nature He created and, in so doing, would destroy the latter over the entire span of time.

Reality would cease to be, to have been and to be in the future.
Not even God or an Almighty Entity could allow Himself to subvert the laws of Logic... because by doing so He would destroy the postulates, the cornerstones, the pillars on which reality itself is founded.
By allowing a logical contradiction to become reality, the Consistent Reality that we know would cease to be and... would vanish instantly. It would never have existed.
Like a mathematical system in which a theoretical flaw is discovered, it would lose its meaning and consistency. It would effectively cease to be... and to exist.

At this point, since we are here talking, and we exist, we must therefore assume... that so far this **has not occurred**. Until now, God must never have created contradictions within the system.
However, in the same way, we can deduce that this event has not occurred in the future, either. Since that would mean that Reality would be cancelled instantly, all the way back and over its entire time span.
So, since we are here writing, discussing and reasoning, we have to consider that such an event has never occurred. Neither in the past nor in the future.
That means (and it also appears obvious to me) that such an event **can never occur**.
That would confirm the inviolability of natural laws, effectively safeguarding the anthropic principle and enshrining forever what I'm going to postulate as the:

"Principle of Inviolability"

Therefore, Eternity and Omnipotence are enclosed in an unbreakable box... That no force in the Universe can ever crack and whose intangible and transparent sides are established by the laws of Nature and by Logic itself.
Forever fixing our gaze towards infinity.

The "principle of inviolability" would safeguard our lives from any loss of consistency of our Reality and, at the same time, would decree the extreme loneliness of our destinies and our actions on our journey towards the future.

1.4. ARE THERE ANY POSSIBLE EXCEPTIONS?

We can perform another thought experiment.
Even assuming that God cannot actively intervene on the issues concerning our lives by modifying the laws of nature, we can try to envisage His intervention all the same.

I imagine that, following this explanation, what I'm about to say may seem contradictory, but that's not the case. It falls within the parameters of logic and, as such, it's a consideration that I cannot dismiss.

To obtain a result that is "outside the rules", God could actually intervene on reality by modifying the laws of nature and, in so doing, would cancel the existence of the "antecessum" reality.
Despite the fact that doing so could subsequently recreate the universe and all its history. He could insert the desired variation from the beginning and thus create a new Universe, a new reality in tune with the natural laws of logic, without contradictions and therefore consistent, while containing the desired variation.
Could He do that?
Let's look at an example so as not to lose our train of thought. Suppose a car accident occurs this evening and a loved one dies. Could God, listening to our prayers, change reality and ensure that the accident never occurred?
We have seen that if God were to intervene to contradict a natural law, He would destroy the fabric of Reality.
However, we have also seen that God could knowingly make the current reality cease over the course of its entire existence and replace it with an alternative version in which the person who suffered the accident never goes through that event.
A side issue to consider is the fact that, in this case, the family members of the victim, who populate the first version of the Reality, could not know anything about it in the second Reality, simply because the ominous fact would never have occurred. They wouldn't have any

knowledge of it, just as the subject of the accident would have no knowledge of it. The reality would be coherent and uninterrupted by those who inhabit it and they wouldn't notice any difference, nor would they have any notion of what happened in a previous, yet distinct identical reality.
So, even if God actually took it upon himself to recreate everything all over again just to avoid an unfortunate event, no one could ever notice. No one would otherwise mention it ...
Let's stop for a moment and think about whether or not all this is "possible".

Could God do all of that?

I don't think so.
To replace the Reality rendered inconsistent with the new "modified" version, He would still have to introduce a variation of some kind and in doing so would intervene on it again, rendering the new version... inconsistent, too. The point is that our actions are part of the same consistent reality we inhabit, of which we are an integral part and to which we contribute with our existence and our actions. Our thoughts and choices have a physical correspondence. The ideas that inhabit our nervous systems are also determined by ion exchanges at the molecular level. When we produce actions, they produce an influence and a modification on the environment around us. Therefore, our ideas and our actions influence the Reality that surrounds us and actively enhance it. By becoming part of the Consistent Reality, our thoughts, our choices and our actions can neither be forced nor modified by external intervention.

Therefore, the "Principle of inviolability" is total and unquestionably inviolable.

1.5. FREE WILL

It seems clear to me that all of this inevitably leads to a new way of looking at the logic of Free Will. This is the fundamental and necessary element for Reality to continue to exist. Total free will, for both human actions and the ideas they produce, can be more loosely be reformulated as the:

"Principle of Absolute Natural Freedom"

This last principle more broadly embraces not only the actions and ideas of mankind, but also Natural events of any kind dictated by the interaction of the elements and forces that coexist with it.
It is through it that the delicate mechanisms of Nature can continue to be nourished and function unhindered, turning like the unbreakable and immutable cogs of an exotic... Eternal Clock...
That's the reason God cannot intervene on Free Will, modifying it once or at will; because by so doing He would violate the Laws of Nature that He himself established by decreeing the very existence or non-existence of Reality.
Changing the free will or, rather, artificially forcing the "Principle of Absolute Natural Freedom" would be equivalent to forcing a cog in the Eternal Clock so that a different time is shown than that produced by its own mechanisms. Thereby destroying it.

So, now we come to the final answer.

1.6. THE PRESENCE OF EVIL

Now, after this extensive reflection, I believe it is possible to venture a conclusion. If God cannot intervene on Nature and His laws in order to modify its wrongs and if, as we've seen, He cannot actively modify Free Will... then

He also cannot prevent evil from manifesting itself….

Therefore, Evil would be a natural by-product of the free and chaotic interaction of the elements that contribute to the creation of Nature itself.
Statistically inevitable and inescapable like the entropy of any physical system... unfortunately, it cannot be eliminated by external interventions that might contradict the laws of nature and logic.

1.7. A GOOD, NEUTRAL OR EVIL GOD?

Accepting that what has been stated up to now is plausible, I believe that if we wanted to attribute a moral connotation to a supernatural Entity, to such a God, we could only acknowledge that He "cannot" intervene in our daily affairs.
Therefore, I would consider God, assuming He exists, to be an entity that is undoubtedly not malignant towards us, but probably…

Neutral

September

https://www.youtube.com/watch?v=iC1CLRvbMX0

1.8. OMNISCIENCE AND CONSISTENT REALITY

We postulated the existence of God within what turns out to be, to all intents and purposes, a mathematical type of nature and we subjected His main characteristic, Omnipotence, to a thorough examination. Now it's time to move on to examine another Divine characteristic attributed by default to an omnipotent God, Omniscience. This characteristic also has a divine-infinite attribute. God is supposed to know everything, every fact at any time. Total knowledge, which is independent of any context and which is unfinished, unresolved, "not understood". Knowledge that is extended to infinity, such as to encompass all of nature, including every fact, even the smallest. Even the tiniest detail would be known.

Therefore, the question we should ask ourselves now is the following: could He truly be Omniscient in the light of the logical considerations made?

We have seen that omnipotence can be limited and that the context of natural laws relating to a consistent nature would not allow for exceptions and/or arbitrary changes to natural laws. As discussed, not even an omnipotent Entity could arbitrarily modify the rules He Himself established at will, because by doing so, for example by imposing that a pebble in our hand is no longer one, but two, He would make a false statement true (it would be better to replace the term statement with the term "circumstance"), thereby violating the consistency of the system and decreeing its total non-existence.
Right, but Omnipotence has an active meaning. It's assumed that it serves to produce an intervention of some kind. It's therefore understandable that it can be subjected to analysis in relation to the system upon which it could potentially express itself.
However, on the contrary, omniscience should have a neutral meaning since at first glance it would not presuppose any intervention on Nature. Only knowledge of the same (as if mere knowledge does not itself include an active component).

Therefore, could He at least be able to know, in the sense of being aware of the facts, all the events (even the smallest) present in Nature?

To answer this question, which most believers would simply answer by repeating by heart the notions learned in youth during catechism, I believe we should subject it to the scrutiny of this new logical model. If it's compatible, and only in that case, we will then be able to say whether or not omniscience is compatible with the natural laws. So, let's see.

We could say that God is aware of all facts and circumstances, that He knows our lives and therefore our souls, our most intimate thoughts and our sins. So far, I have little to object to and I believe that this can, rightly or wrongly, be held as the most common definition of omniscience described by ordinary people. As well as by various religions.
However, our scope of investigation requires us to act with greater rigor and to proceed logically, trying not to leave out any details.
As already discussed, omniscience should, by definition, have a meaning that is divine and infinite. It should include any notion, any data present in nature, at any time and not just the details of our lives. This notation would therefore also include knowledge of natural variables, as well as their results and their interactions. It should be extended to the motion of planets, their mass, galaxies and clusters of stars; it should also be profound enough to discern any data concerning the subatomic nature of matter and the interaction of particles. Of every single particle…
We therefore come to the question that has been hovering in the air since the underlying preamble...
Could He therefore know, for example, the position and the velocity of a particle at the same time? Could He, in other words, violate Heisenberg's Uncertainty Principle?

Once again… I don't think that's possible.

There are two fundamental reasons. The first is the following: He cannot violate the system without undermining its foundations, His own foundations, and, likewise, He cannot (not even this time) violate a basic principle of physics.

The second reason concerning the limits of absolute knowledge within the system is linked to Godel's Principle of Incompleteness.

Indeed, Godel showed that there are undecidable propositions within a consistent system. Their undecidability is inextricably linked to the consistency of the system.
Therefore, true propositions that cannot be demonstrated within the system, using the rules of the system itself, exist and will continue to exist.
This means that if my hypothesis is true, and I'm sure it is, our Reality will always contain undecidable propositions.

I therefore consider omniscience to be a construct that isn't compatible with the fabric of our reality and I believe that, despite the romanticism connected to it, the concept is destined to fade.

Aside from all of this, I think that even abstractly, it inevitably contains some constitutive, logical limits which cannot be escaped. Not even an omnipotent and omniscient being whose pronouncement (His Gospel, His Word) was directed towards Himself in a self-referential paradoxical loop could get "the better of Himself", since not even He could overcome Himself, or be right and wrong at the same time.

1.9. A POSSIBLE NEW CONCEPT OF GOD

As seen above, the Divine supernatural entity in our example cannot use His own Omnipotence to subvert the laws of nature and thereby prevent unfortunate events from occurring in the system, therefore

He is unable to prevent the appearance of "evil" and unilaterally free us from it.

We've also seen that the God in our example could not, consequently, be called Omniscient.

We assumed that any of His interventions on natural laws would lead to the system's loss of consistency, disintegrating reality itself along the axis of time.

The question that I believe now arises spontaneously would be the following. Could we nevertheless presuppose a Divine intervention on the affairs of men that He may wish to carry out whatever reason? One that would not distort the natural laws and therefore preserves the consistency of the system?

The answer is yes. It's possible. I admit this may seem confusing now, after everything we've discussed. However, the answer is still yes, but it involves a very high cost.

It may be compatible as long as we allow a new concept of God into the system.

He should be part of the system. Not external to it. He would be part of it. In some way, He would also be an actor in the system itself. Part of the immense theatre created for us.

He could intervene in the system, but only from within, like one of the actors in the system itself. Without violating the natural laws, simply using actions and forces as we apply them ourselves. I don't know how might be compatible with the assumption of an immaterial, spiritual and invisible God.

Our idea of God would be altered completely and its essential elements would have to be reconsidered. I might almost say... denaturalized.

1.10. CONCLUSION OF THE FIRST PART

I would now like to try to express my closing thoughts.

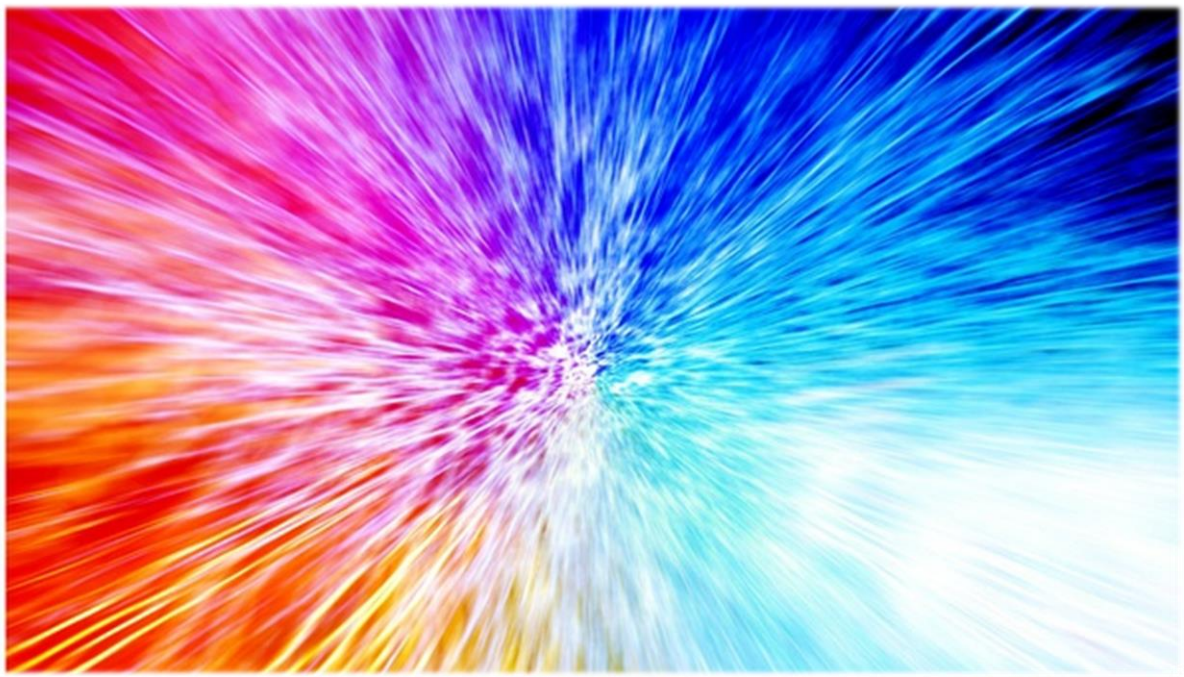
Let's take a look at the double-slit experiment for a moment. The effect of the observer on physical phenomena has been known for some time in physics. The collapse of the wave function as a result of observation. I believe the fundamental question we should ask ourselves remains the same. What is the purpose of all of this?
Why do we exist and what is the purpose of life?

I can only express a personal, questionable and subjective opinion on the issue. I have no structures I can put forward nor have I developed any models. I can only use my spirit and my less rational part that still perceives an underlying feeling of the structure that should exist in this cosmic context.

Black holes that absorb stars pushed by tidal forces to deform as a result of the speed of rotation of millions of kilometers per hour, white dwarfs that spin wildly in binary systems, Quasars, ultra-high energies, extremely violent emissions of gasses and gamma rays, clusters of galaxies and hyper clusters... Cosmic cataclysms of colossal dimensions...
All this, however impressive on our scales, is relative and **amounts to nothing** in the face of infinity. They are insignificant phenomena. In fact, any finite number, however large, amounts to zero when compared to infinity.
Only one thing, so fragile... but also, by its very nature, so infinitely strong, can be "not nothing" in the face of Infinity.
Gentleness…
A flower that seeks the light in a ravine in the asphalt, a dog that wags its tail to its human companion, the grateful gaze of an elderly person, the indissoluble feeling that binds a father to a son, the pain, the loss, the despair for the loss of a loved one, the loss of a child. A cosmic embrace that cuts through any distance, that traverses time and that

exists as such... and that allows Nature, the Universe, through us as observers, to be "something" in the face of nothing, in the face of the abyss of Infinity.

Gentleness is the ultimate secret of the universe.



Mornings

https://www.youtube.com/watch?v=GqzK7HIlxF8

CHAPTER 2

THE THEORY OF THE EGO

2.1. INTRODUCTION TO THE SECOND PART

After having analyzed the nature of reality and the possibilities and ways in which a higher Entity (God) can intervene within this structure, the time has come to address another important topic, linked to the first.

We know that the issue of the observer is central to physics and, as we've seen above, it's thanks to this that nature affirms itself towards infinity.

In the second part of this piece, I will focus my endeavors on trying to rationalize a particular topic related to the issue of the observer.

What does being an observer mean? How does being an observer work? Considering an observer as a mathematical set containing various characteristics, which of them "observes"? Or which subset? I understand that this approach may seem somewhat unorthodox and unusual. I'll focus my endeavors on a particular aspect of the observer: THE EGO. I consider this issue to be complementary and no less important or interesting.

In particular, I'm going to refer to a structure, to a pattern I identified when I was a young teenager. A type of behavior that I find reflected onto everyone I come into contact with and which I believe is a fundamental part of the EGO. I find this pattern unaltered in everyone I meet and in every author I know. It appears like clockwork in countless historical episodes that I will mention in part later and which support my idea. I would add that I identified this structure by a statistical analysis of a large and totally heterogeneous sample of people.

As far as I know, the content of this mechanism of functioning of schematic behavior has never been rationalized by anyone.

Therefore, it is unknown.

At first, it was just a feeling. Unbeknownst to my peers, I perceived the effects of this pattern and recognized it in others, but I was still too young to rationalize it all into a logical chain of cause and effect.

I believe that the fundamental difference that must have allowed me to rationalize it was my heightened introversion, a strong critical spirit and a natural lesser presence of this pattern in my own mental structures (such as to allow me to remove myself from it and therefore be able to judge its scale). Last, but not least, the will to try to understand, to try to get to the bottom of a feeling of irritation that I always felt lingering in the background, as if there was something perceived, but unrealized, not fully understood. Unresolved.

I confess that I also tried to conform to it. However, instinctively understanding how it works, I have always been partially immune to its effects.

One of the main aspects of my theory is that the EGO is fundamental in the choosing process of individuals.

The EGO and the "**mechanism of choice**" are intimately connected and are each part of the other.

The theory I intend to describe assumes that there is a common pattern in the mechanisms of choice, common to all and shared by the masses. Is it therefore possible to speak of a model of behavior common to all peoples? Is it possible to speak of a shared structure, which can be transversely possessed by everyone? Even by different persons and peoples, very distant from each other? To my mind, the answer is yes. When we extend a model to such a general level, the only plausible explanation, in my opinion, the only area that we should

effectively investigate to support such a hypothesis lies in the genetic root that we all share. A common trademark.

Indeed, we all share common genetics, we all have a brain, a mind and, more profoundly, an identity. Who makes the decisions? Are we really free? How much do genetics affect our choices? We are used to considering ourselves completely free in terms of the choices and decisions we make, but that isn’t the case.

2.2. THE DRONE - VARIOUS EXAMPLES IN NATURE

We see various examples in nature. Let's start with an analysis of the insect kingdom. They have a very simple nervous system and a small brain. I doubt that they are aware of their own existence and I also strongly doubt that they are able to rationalize their choices, their decisions. However, they also perform complex tasks and are capable of collaborating in colonies of the same species. What drives them is a common programming that they inherit genetically and that we call "instinct". Instinct completely dominates their lives. I'm talking about real programming, like a computer software, because that's exactly what it is. Indeed, the instinctive behavior of the Drone was studied in the ‘90s at my university as an example of programming analysis.

To all intents and purposes, this little insect performs the equivalent of a computer script for its entire life, obviously with all the variations involved. In this case, instinct governs all the choices and behaviors of this small animal and I believe that, in this case, the brain has evolved in response to an element of variability that is inherent in life itself. A control unit has therefore evolved to deal with any unforeseen events that might interfere with the program, such as the momentary presence of a predator or other external factors, to make the application of the program more flexible and to return to the routine once the alarm has ceased or to adapt it to external conditions.

There are even more primitive and simpler life forms, such as cellular ones. In a certain sense, they too perform a routine. Much simpler, truth be told, and to draw a parallel, they work more or less like machines. In this case, let's delve even deeper into the analysis. Elementary life forms, such as viruses, are not naturally equipped with a nervous system and cannot set aside what they are, even for a moment. They hover between life and non-life; very complex macromolecular machines. If they are torn apart and put back into a compatible system, they can come back to life, but it's the equivalent of saying that they begin functioning once more...

Higher-order animals have more or less large brains and are equipped with nervous systems. They have a strong element of instinct, which governs much of their lives.

Instinct, to all intents and purposes, would therefore equate to genetically inherited programming. A shared architecture that gives rise to similar behaviors within the same species.

However, higher-order animals are able to intervene more widely on the instinctive part. The superior cortex developed in response to stronger evolutionary pressure and to respond to the greater number of variables present in more complex environments.

Nevertheless, mankind must also deal with this natural constitutive method. It is, to all intents, an evolutionary element. Instinct is also present in us. Mankind, the human race, finds itself operating in an even more complex environment compared to animals. I believe that, in response to this pressure, the gene (or set of genes) that enabled us to develop complex and shared behavioral architectures simply survived. And that allowed those very same genes to survive. Or prevail.

I therefore consider it plausible and reasonable to talk about common patterns of behavior.

2.3. THE EGO

Our genetic background is the complex result of relentless evolutionary pressure. The genes that have survived over time are the ones that, when it came down to it, were able to guarantee a competitive advantage to the organism hosting them. Perpetuating themselves over time. In "The Selfish Gene", Professor Richard Dawkins provides a very interesting interpretation of the bodies that serve this purpose and ends up defining them as "time ships". In short, he argues that we are all just complex ships carrying genes on a journey that does not take place in a spatial sense, but rather in a temporal sense towards survival over time. We are therefore spatial ships that travel in time and that, by surviving, guarantee our genes receive a chance to continue the journey...

Our complex architecture is the result of this incessant struggle for survival. If we think like that, on this scale, we can easily understand how the presence of an "EGO" has been a competitive characteristic and a success factor for life. Why are we equipped with an EGO?

In a hostile and dangerous world, it was obviously important for our "control unit" to be able to make predictions, simulations on the effect of our decisions.

Indeed, we have the ability to do so thanks to a very powerful tool: the imagination. Einstein used to say that it was his imagination, not pure intelligence, that allowed him to develop the Special Theory of Relativity, followed by the General Theory of Relativity.

Thanks to the ability to imagine, we can mentally construct a virtual environment that simulates our real environment. Within it, we can evaluate the outcome of our choices on ourselves, before making them. Enter a ravine to retrieve some food or wait for fear of being eaten alive by a predator? Copulate with an available partner or not do so due to the presence of danger? These types of questions are typical of an unfavorable world that has been a part, and therefore characterized, 99% of our evolutionary path. These assessments on

the effects of our choices are therefore made on the basis of a mental simulation of the environment in which we find ourselves. However, for the simulation to be effective and to generate plausible results with respect to the needs of the human being (or animal) that processes them, it must contemplate.... its own presence within it.

The imaginative machine, which is inside everyone of us, simulates the surrounding environment and within the simulation... it simulates itself. It assesses the effects of its choices, circumstantial to that environment, on itself. Imagining itself in the simulation it created. It’s clear that this is all self-referential.

Let's imagine the effect that missing a bus will have on our commitments, imagine the outcome of an awkward telephone call, imagine ourselves before a job interview...

At this point, a fundamental consideration arises. When our mind has to produce a choice and has to assess its effects using a simulation, what image does it use to characterize itself within the simulation? We usually call the person we "see" in the imagined context “Us”…. or, rather, "EGO".

For this assessment mechanism to work properly, an individual must give themselves a name, must be able to count on a summary variable of themselves that can be included in the simulation, a visual and imaginative symbol that summarizes themselves and lends substance to their representation.

Generally speaking, we know that our consciousness is immaterial and that it pervades our nervous system, but the identification it has of itself goes beyond the immaterial boundaries of its host nervous system and ends up blending with the image of the body in which it resides.

This identification evidently must have proved necessary in the evolutionary field to improve the predictive accuracy of imagined events, ensuring greater chances of survival.

In practice, What I’m saying is that, due to natural selection, we all have a common pattern that involves our EGO (hosted within one's own media, i.e. the nervous system) overflowing and identifying itself with a broader image, which corresponds to its own body.

I would now like to briefly report a summary of an excerpt from an article that appeared in a publication called “Scientific American”.

> From recent studies by a group of neuroscientists from the Princeton Neuroscience Institute, which has published an article in the "Journal of Neuroscience", it would appear from subjects subjected to magnetic resonance that our brain creates a representation of the environment and a simulation of probability within it of the various possible scenarios. The brain appears to create a "narrative" of the event it observes and assesses the possible consequences by performing unconscious probabilistic simulations.

When I had almost finished writing this piece, I discovered this article and decided to include the quote. It was right and proper since, although starting from a mechanical perspective of the brain, it essentially arrives at the same conclusions I had reached when considering the mind from the point of view of a computer and linking them to my general knowledge of the evolutionary field. It provides important confirmation, albeit lateral to the premises I have set out and confirms that my starting point is not incorrect.

So, the EGO probably evolved in response to evolutionary pressure. In an extremely dynamic environment characterized by uncertain outcomes, an area of governance was required that could direct the immense cellular colony (represented by a higher-order animal) towards choices favoring survival.

However, where does it reside, what is it made of, what is its form?

2.4. WHERE THE EGO IS LOCATED

We could try looking inside the brain... but I'm almost convinced that we wouldn't find any specific area designated to host it. I think Professor Douglas Hofstadter would agree.

We could decide to eliminate parts of the brain that are not part of the EGO and we would start eliminating one cell and one synapse after the other, ending up with a deconstructed set of brain cells; without finding a thing. We must therefore try to investigate the problem from another angle, from the "software" angle.

We're used to identifying ourselves with a proper name. We see an acquaintance and decide to call them by name. Who are we calling? Are we calling that person's EGO? Are we addressing a specific part of the person or are we addressing a larger part of them? Basically, we have to admit that we recognize the person from their external appearance. Our acquaintance (and the same happens to ourselves) identifies themselves through their own image. They see themselves in the mirror and define themselves by their first name. That is what normally happens and no one wastes time reflecting on such seemingly trivial things.

Therefore, the image we have of ourselves identifies us because it is a summary symbol of ourselves.

It identifies our EGO towards the outside world. Ethically, this may seem incorrect, but it is a matter of fact. Our appearance should be external to ourselves, it should be external to our personality, to our EGO. In fact, the latter should be found somewhere in the nervous system and should be detached from our carnal limbs. To use a simile that can be understood, our EGO and our body should be comparable to a car and its driver.... Naturally, we shouldn't be judged by the car we drive.

Yet, like it or not, there is a sort of identification of the EGO with the body it inhabits. The EGO resides in the mind, but it's as if it traverses

those boundaries and ends up creating a connection between itself and the appearance it believes it has in the physical world. This relationship has already been studied by various authors, including Rolf Pfeifer who, among other things, coined the term "embodiment" in the field of robotics.

What is highlighted is that the development of a type of mind may not be distinct from the body it inhabits. It’s the profound bond of identification that exists between the mind and the body that generates this result.

Indeed, we can think: “I'm fat”. Or: “I'm fit”. Or: "I have short legs", "I have a protruding chin", "I have long arms"... and so on. None of us usually reflect on such considerations, which are interpreted as normal, yet they reveal much of the subconscious relationship that connects us to our body. We always use the words "I have"... "I have long legs"... This betrays the degree of the relationship. None of us, standing in front of a mirror, would say something like: "my body has long legs". It wouldn’t sound right. The relationship is always direct.

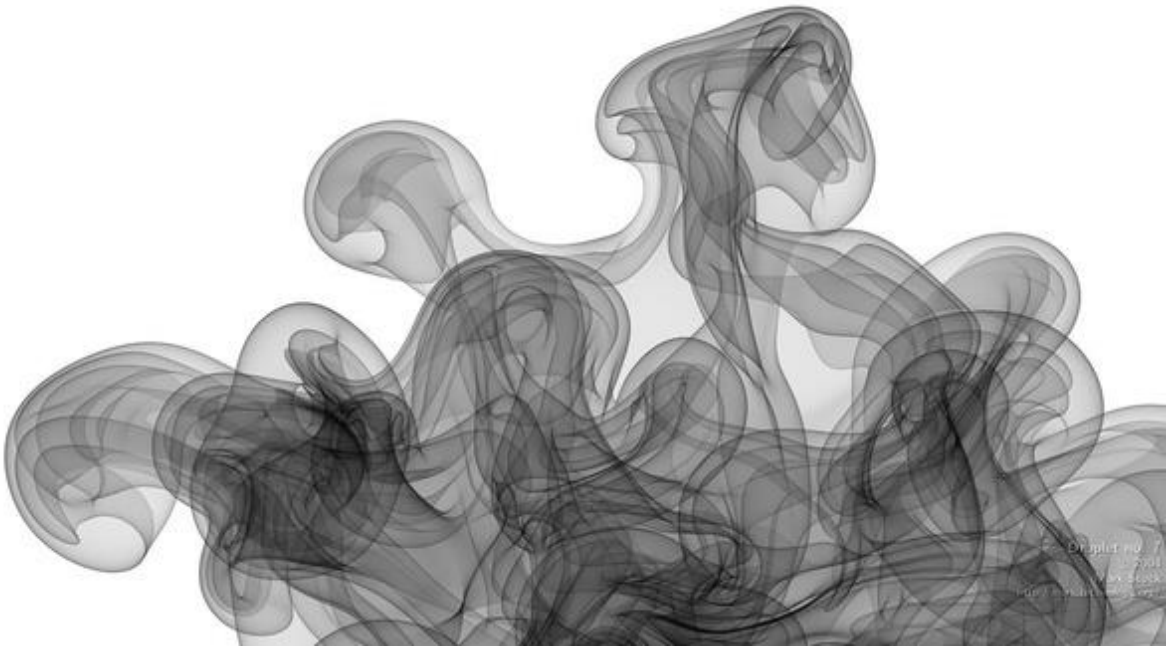
The EGO identifies much of itself through its body and ends up asserting that “it has" long legs. The EGO lives inside a body (and we could even go as far as to say that it is a manifestation of the mind within the body) and should not judge itself through the qualifying attributes of the body itself. Yet this happens and is quite natural. Evidently, as stated previously, these characteristics have been found to be intact for now and have been found to be compatible with the process of natural selection. This mechanism, by which the EGO identifies itself with its body, must have represented a natural advantage and have permitted or contributed to the survival of the individual. The mechanism itself must have survived through the ages.

The EGO probably doesn’t reside in any particular place in the brain and all the components of the mind end up defining it. It springs from the mind like an epiphenomenon. A holistic phenomenon that emerges from complexity. I found the example of the box containing

various paper envelopes, in a book by Douglas Hofstadter (I Am a Strange Loop) particularly pertinent. At the center of which it was possible to clearly detect, using the sense of touch, the presence of a glass marble. In reality, there was no marble. There was no particular place where it could be. The marble didn't exist, not in the way we mean it. There was only its phenomenon, its presence, the marble… emerged from the complexity of the system as a by-product. Its presence was generated by the very thin layer of glue used to hold the center of the envelope together. That very thin layer, as the number of envelopes increased, generated a sensation to the touch that there was a glass marble in the center of the box.

As the number of envelopes in the box increased, it became present. Likewise, removing the envelopes from the box, it vanished...

The EGO is present in the brain, it pervades it (and according to my theory, it even traverses its boundaries thanks to the same type of effect as the phenotypic effect highlighted by Richard Dawkins in the field of genetics, which I will return to later). Exactly as happens with the pseudo-marble inside the box, the EGO is also an epiphenomenon produced by the complexity of the factors involved. Billions of brain connections combine to create a fairly complex environment, within which an EGO can finally... emerge. It needs to summarize itself in a symbol, which is represented by its own body. Therefore, it generically inhabits the nervous system, but overflows outwards and ends up identifying itself with its body and with other external elements. It inevitably degrades with the onset of old age. When the connections begin to fade, the EGO gradually starts to become more confused and intangible, until it disappears.



2.5. WHAT THE EGO IS MADE OF

If we continue the analysis from the software angle and not from the hardware angle, we can say that the EGO resides in the mind and must therefore consist of thoughts. I would say these are mainly Ideas, Choices and Considerations.

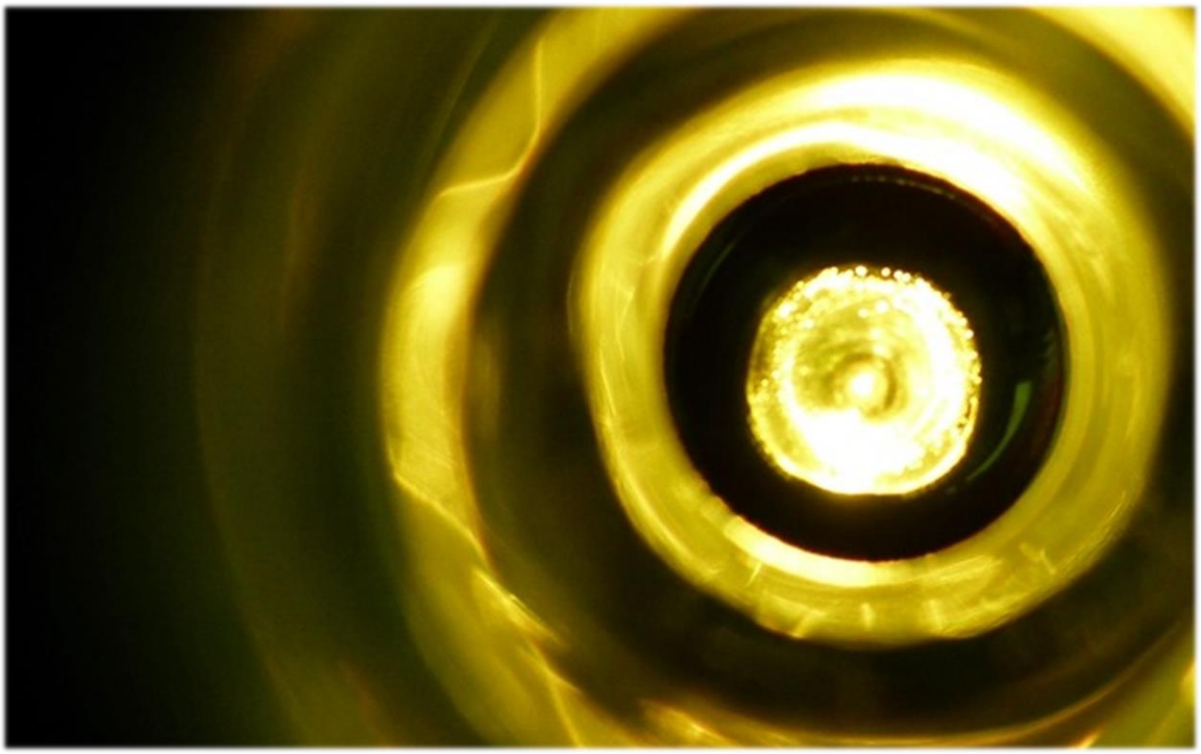
I see a strong similarity between this macro set and what Professor Dawkins calls Memes. For Dawkins, examples of memes include "melodies, ideas, phrases, fashions, ways of modelling vases or building arches". They spread from one brain to another through a process that he calls "imitatory". However, I don't think we're talking about exactly the same thing. I'm not sure that the Memes Dawkins talks about also contemplate the symbols representing concepts such as the emblem of a football team, nor the choices we have made during our lives, including, for example, the choice of the car we drive... that in my macro group (although not exactly memes) are decisive in any case.

Nevertheless, I would also like to quote an excellent summary by Professor Humphrey regarding memes and how they work: "…memes should be considered living structures, not just in a metaphorical sense, but also technically. When a fertile meme is planted in a mind, the brain is literally parasitized and transformed into a vehicle for the propagation of the meme, just as a virus can parasitize the genetic mechanism of a host cell. It isn't just an expression: the meme that lays the groundwork for, let's say, believing "in life after death" occurs physically, millions of times, as a structure of the nervous system of people all over the world".

I agree with Professor Dawkins regarding the presence of an imitation mechanism in the passage of a meme from one medium to another. However, I believe that this explains part of the issue and I believe that there are also other ways in which new Memes enter or spread to the human brain. It may be possible to analyze how that can happen and

make the issue clearer and more comprehensive. After analyzing the form of the EGO, we will return to analyzing the topic more fully.

I'd now like to try to explain why some memes are accepted and others aren't. Why some manage to take root and eventually even spread by parasitizing other media, and others don't. Why does that happen? I believe that the explanation for all this lies in the analysis of the intangible form of the EGO.



Menuet from Suite in B Minor by J.S. Bach (LIVE)

https://www.youtube.com/watch?v=Vzoo7oKrl_M

2.6. THE INTIMATE FORM OF THE EGO

We can state that if we're looking for the form of the EGO, that's because it explains how the process of choice works and, above all, the process of defending the choices made.

We know that the EGO uses the image of its own body to identify itself, in the first place, but we still know nothing of its real, intimate form. We know that the EGO is intangible, "a configuration" that arises from complexity.

A computer program resides on the host machine. Might we perhaps say that it is composed of circuits? I don’t believe so.

The program runs on the machine, nowhere in particular, and has its own Architecture. A "computer" form or structure.

I consider investigating the architecture of the EGO to be particularly important because, according to my theory, it’s possible to effectively understand how the process of choice and defense of the choices expressed takes place. Also, as we will see, how they themselves are an integral part of the EGO that defends them so strenuously as parts of itself.

Each of us has an EGO with a different form and different subjects make different choices. What stays the same for everyone is the basic architecture. Here’s an example to clarify matters: We know there’s a thing called "home". We’ve never seen it, but we have indirect evidence of its existence. We know that everyone has one, but we realize that it’s impossible to define a unique shape for each house, everyone has their own. However, we know that there are inherent characteristics common to all homes. They all have a roof, they all have a door and they all have walls, etc. These elements can vary widely and be vastly different, but we all share a common pattern. As we have seen above, this model is common to everyone because it is evolutionary.

Let's start in an orderly fashion. We know that the EGO inhabits our mind. The first area of investigation must therefore define the environment in which the EGO emerges. By defining the environment in which the EGO lives, perhaps we might be able to make effective assumptions regarding its shape.

I believe that our mind is comparable to an open system, continuously changing. With a continuous flow of data in and out. Such a system would, by nature, be turbulent and subject to continuous alterations.

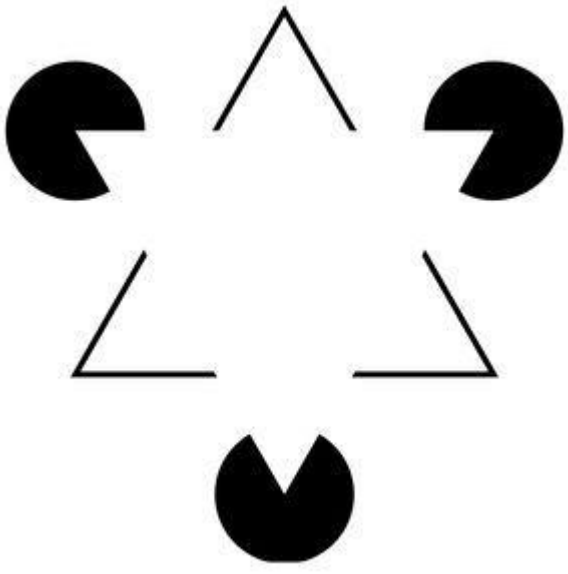
I imagine a continuous melange of flows that continually intersect, in a continuous emerging of new forms. I imagine the environment within which the EGO can emerge, a chaotic environment, where flows overlap one another and where elements coming from the outside contribute to influencing their movements and interfere with the balance of the system. I'd like to introduce a few images to explain what I mean. A visual example might be Jupiter's red spot. It's a complex system that persists within an extremely dynamic environment, characterized by flows of extreme kinetic intensity.

In the same way, I imagine the mind as an extremely dynamic system within which a particular area persists, the EGO, characterized by its own peculiar properties that allow it to persist.

For our EGO to survive in a turbulent environment and continue to emerge, it needs to continuously redefine itself. That form can survive thanks to continuous actions of self-conservation, self-regeneration and preservation. By implementing the necessary countermeasures for its own conservation, we can state that the EGO is self-conserving in a dynamic environment. The EGO preserves itself, its characteristics and the balance that allows it to maintain its form unchanged. The EGO tends to conserve its form. So, what is its form?

I believe that, first of all, we should ask ourselves what "bricks" make it up. I believe that the EGO exists as an epiphenomenon. Like Kanizsa's anomalous triangle or the false marble in the box. It doesn't really exist, but we perceive it as existing due to the presence of elements that define it. There is no triangle in the Kanizsa's diagram, yet it can be perceived.

The **Kanizsa triangle** is an optical illusion, first described in 1955 by Italian psychologist Gaetano **Kanizsa**.



https://it.wikipedia.org/wiki/Triangolo_di_Kanizsa#:~:text=Il%20triangolo%20di%20Kanizsa%20%C3%A8,dallo%20psicologo%20italiano%20Gaetano%20Kanizsa.

There is an interaction that suggests that there is a figure within that image and that it is a triangle. It exists thanks to the configurations that surround it and that contribute to defining it through their adjacent borders. Without them, the EGO ceases to exist. The EGO is like a geometric figure without a frame. It is ultimately like the false glass marble. It is defined by the borders of the constructs surrounding it. Without them, the EGO ceases to exist.

2.7. THE BRICKS OF THE EGO... Let's start from the center….

In the example of the false glass marble, the "bricks" that constitute the phenomenon are homogeneous, they're all of the same type, they're paper envelopes and are "ordered". They occupy a defined, fixed position inside the box and have the same characteristics. In the case of the EGO, the elements that contribute to defining it are not homogeneous, nor are they ordered. If it's true that the EGO is a jumble of assimilated concepts, choices and memes, then they will each have very different characteristics and a different constitutive importance for our EGO.

Here's an example by analogy relating to our body. It is defined by several parts and they're not all the same, nor do they all have the same importance. Sometimes we tell ourselves "my complexion looks terrible today" or "my leg hurts", because both the skin and the legs are part of us. Yet, there is a sort of hierarchy among them. There are parts of our body that are more precious than others and offer greater chances of identification. In general, I would attribute greater hierarchical importance to the areas of the body involving the head. The face identifies us more than the hand. The head itself is the seat of the brain and is probably the most important part. The arms also identify us, but the degree of identification is less than the face. It's natural and evolutionary. If we're about to crash into a wall, we instinctively put our arms out to defend the face and head. The arms are also a part of us, but we sacrifice them to defend a part of

ourselves that provides greater identification. We're instinctively willing to lose a part with a lower degree of identification in order to safeguard a part of ourselves that implies greater identification. We can survive without an arm, but we cannot survive without a brain. Therefore, there's a variable correlation between the areas of our body and our EGO. It is no coincidence that the image of our face is generally used for identification documents. All of the above to say that even among the constituent elements of our EGO, as is the case with the body, there are elements that have different degrees of importance.

2.8. THE FORMATION OF A YOUNG EGO, WITHIN A YOUNG MIND

The open system represented by a young mind begins to receive external input, data that it collects and classifies. During this process, involving total uncertainty regarding the world, a new mind will try to create a representation of the world based upon the data acquired and will reformulate a vision through the uninterrupted flow. It will set this model against the actual facts and, as it continues to acquire data, it will begin to form an increasingly detailed model of the surrounding world and of itself within it. Any information it receives first from its family and its environment will be more important than the rest.

Indeed, they will enjoy a particular connotation or status. They will be considered particularly reliable and will also be linked to a sense of gratitude to the family of origin. Being the first, they will occupy a particularly central position in the EGO being formed and will end up becoming the pillars of that person in future.

Have you ever wondered how traditions come about and how they become an integral part of people's lives? Have you ever wondered, when it comes to voting, for example, why there are geographical areas that historically have a certain political leaning? Have you ever

noticed that the vast majority of supporters of a football team originally inherited their preference from their family?

Therefore, the concepts that make up our EGO are also divided into areas of importance. Those very dear to us and which play the role of postulates, pillars that become "central", so to speak. Less important ones will populate gradually more external, more peripheral areas of our EGO.

Therefore, I don’t believe that the EGO has a truly defined "center". However, I believe that there is a more intimate, more profound area which is inevitably more inwardly.

We can use statistical reasoning to understand how the genesis of an EGO which is being formed might be structured. We don't know how many concepts make up our EGO, how they are related to each other or their hierarchy. However, we know that the concepts begin to enter a young mind as they would an open system. This can probably be represented by a statistical example. If we use a pen and start randomly putting dots on a white sheet of paper, after a while, we will produce a round set of dots. The innermost part will have a high density of dots, whereas the outermost part (with a lower probability of being reached by the pen) will be characterized by a lower density of dots. Looking at the figure being formed, we can already understand several things. The more dots on the sheet, the greater the definition of the shape that emerges from the set of dots.

There are also analogous forms in nature, since probability distribution is part of Nature and, as such, can be found in any part of the cosmos and on any scale. If I’ve managed to convey this example and if we stop to think about it, I think this type of form is unmistakably similar to the shape of a galaxy.

Albeit with some difficulty, we have finally managed a preliminary identification of the EGO’s form.

Given that the model discussed is plausible, we can and indeed must ask ourselves what defines the dots that create the image.

I think it would be more appropriate to replace each dot of that ideal figure with a "segment". Segments can also be individual phrases, musical tastes, choices made in any field, things learned, symbols, political, religious or sporting affiliations. They can also be traditions, songs and even types of clothing…. Therefore, if we define the segment as a basic unit for identification, we arrive at a definition of the form of consciousness.

Together with other segments, each segment of the EGO will form a kind of concentric ring, in an inward spiral of rings.

The innermost areas are the most intimate and have a greater importance. They constitute the scaffolding of the nest- or Galaxy-shaped structure. Without them, the nest would have no supporting structure and could not exist. Segments located in the outermost regions are of a lesser importance. They also contribute to forming and extending the structure, but the loss of one or more external segments doesn’t lead to the collapse of the structure and may even be replaced by others. Instead, the internal ones gain increasing importance as they define the EGO in depth towards the core, in the most intimate part.

At this point, we can define an order of importance based on the distance of these segments from the center and, consequently, the degree with which the EGO identifies with those areas.

The EGO, as in the example of the non-existent marble or Kanizsa’s shape, is actually non-existent in terms of itself. It is present thanks to the segments that identify it. The segments are what outline its form and identify it and, "emerging as the pure and complex interaction between segments", it will identify itself with the very segments of which it consists because they define its form.

The concepts located towards the internal area of the EGO ensure a stronger identification and are closest to the core. Let's go back for a moment to the image of a galaxy, the force of attraction at the core will be much higher than in the periphery. The EGO will act in the same way. The concepts, segments or memes that most identify the EGO are the innermost ones that are subject to a greater force of attraction, consequently the EGO will tend not to let go or to renounce concepts that are topographically located near the center.

It’s extremely difficult to establish any kind of dialogue concerning segments close to the center and to convince the person involved in our conversation to abandon concepts that are particularly dear to them. The reason is that they are very close to its essence and as such are the subject of a strenuous defense. This defensive mechanism can

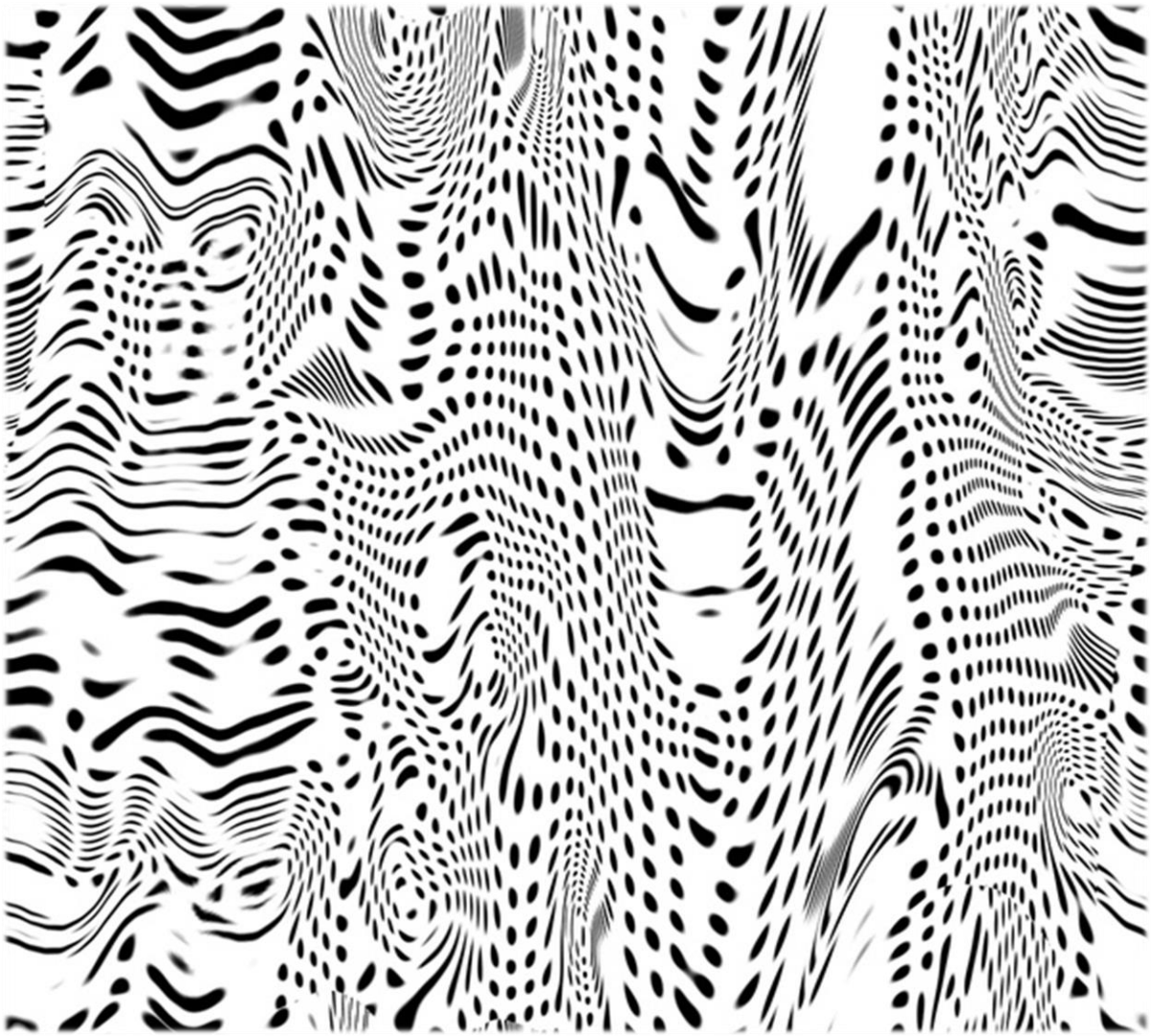
also be prolonged a priori. Despite proving to the other party that an idea that has been learned is based on incorrect assumptions. Even proving this using logic, the other party will put up a strenuous defense of the segment under attack and will defend it more the closer it is to the center. It will be defended a priori and also using non-logical considerations or arguments. This happens because the only (unexpressed) true motivation for this defense is due to emotional, non-logical arguments. Indeed, the purpose of the other party is to defend the concept that represents an important part of their EGO at all costs. From here onwards, we need to understand once and for all that, in a heated verbal discussion, we're not only talking about ideas and whether they might be right or wrong, we're discussing whether or not parts of our being should be abandoned or defended.

Our aim at that moment will be to keep our EGO intact and with it the segment that helps to define ourselves.

This occurs because, as we have seen above, the EGO is characterized by two overlapping processes. Firstly, it identifies itself with the segments of which it consists and then tends to keep its form unchanged because it is self-conserving.

Consequently, it will implement a strenuous defense of the segments it considers most important, the ones that most characterize it. Those that constitute its essence. Whereas it may be more open to dialogue regarding external, less important segments.

That's why I believe that before undermining a segment that the other party deems important, we should begin from the outside, on the weaker areas. I'll come back to this point later on.



I like Chopin (Solo Piano version)

https://www.youtube.com/watch?v=Yzx4I9NvfYk

2.9. THE SEGMENTS OF THE EGO, THE BRICKS OF OUR BEING

I can't say if one segment is more important than another. Indeed, we all have our own scale of values and, from the outside, we cannot know how close these choices are to the core or how far away from it they might be. It would therefore be arbitrary and conceptually wrong to try to create a standard "map" of the segments, of the rings and therefore of the EGO. On the other hand, I think a non-standard map is easy to define and the model I have put forward provides just that: even in individual diversity... a common architecture.

a) Segments:

I have called the jumble of concepts, choices and memes that make up our EGO "segments". I have included a wide range of aspects. Songs, ways of building things, phrases, ideas, choices made, things learned… symbols acquired. Segments, as I said, are not just made up of memes, i.e. patterns of instructions that we receive from the other human media that make up our environment, but also from other conceptual categories that derive from an autonomous or semi-autonomous process of choice: symbols and choices.

b) Symbols:

Symbols are a very important category and I think they deserve a separate discussion. What do I mean by symbols? I'm referring to a football team, the symbol of a political party, the badge of a car, a fashion brand... but not just that, there are an infinity of symbols. Religious symbols, symbols that each of us associates to abstract concepts, as well as objects that become symbols. The process of acquiring symbols, i.e. the process through which we make certain symbols our own, takes place semi-autonomously. That's because the process of choice is fundamental to the way in which they become a part of our EGO, but they (too) are in part the result of the influence exerted by external sources belonging to the environment which, in one way or another, becomes ours.

c) Choices:

The choices made are self-declarations. They're stamps that we put on a concept, a tangible or intangible thing or a Meme. We declare to ourselves that we like or dislike that particular thing and that it therefore deserves to become part of us.

2.10. THE PROPERTIES OF SEGMENTS

As a child, I remember often playing with a small magnet and I was always fascinated by how it was able to extend its magnetism to the small pieces of iron it touched. The first, those closest to the magnet, had an attraction that was similar to that of the magnet itself, although slightly lower. I kept connecting small pieces of metal, not directly to the magnet, but to the iron that had become magnetic and I noticed that they also had a magnetic charge, albeit lower, weaker. It was normal and clearly evident, the phenomenon was fascinating.

I believe that the example is fitting and that the center of the EGO works like a powerful magnet. It extends a great force of attraction towards the closest concepts and is be less inclined to disengage from them. On the contrary, it will be more inclined to defend them. Let's look at an example. Let's take the concept of family or that of a child. They too can be summarized as symbols. We have a generic idea of family, we know who its members are, but the word family is the summary of the people who are dearest to us. Yet the definition doesn't stop there. That's because there are a series of characteristics that define the "symbol" of the family. Tastes, traditions, shared ideas, religious beliefs, political connotations, etc.

I am not saying that we will automatically adopt the characteristics listed which define the concept of family as our own. That depends upon a large number of factors and how close the "family" segment is to our core. However, in general, if the concept is dear to us, we will

be very likely to make the characteristics associated to the family symbol our own.

They will become part of our EGO as if they were inside a Trojan horse overcoming our defenses. It could be said that this segment will attract its characteristics to itself making them a part of us. The latter, albeit with an even lower force of attraction, would nevertheless include another concept related to the concept of tradition, for example a particular food, a particular set of flavors, etc. We might adore a particular dish or a particular flavor typical of our area, without realizing that this "taste", this meme, was imported into us by the concept of family, which is another higher-order meme that has the characteristic of being able to bypass all of our defenses...

It could be said that these small systems are themselves endowed with a kind of electromagnetic power, almost as if they were small EGOs. They are veritable local systems. They naturally borrow their original force of attraction from the center, but end up working like veritable little EGOs within the macro system. As in a Spiral Galaxy, the Ego also has small coherent sub-systems, small solar systems with their own cores and their own forces of attraction. The segments that we consider important are endowed with a powerful force of attraction and attract neighboring concepts to themselves or import others into the system.

2.11. THE EGO AND THE PROCESS OF CHOICE

The process of choice is intimately linked to the EGO. The choices we make define who we are. They are part of us. Since the EGO is self-conserving, it will implement a process to defend the choices made because they have become part of it and, in so doing, it will defend itself. We need to constantly define who we are and defend everything that delimits us and therefore establishes our essence. To do so, we need to defend our political ideas, our religious beliefs and our football team in order to defend the idea we have of ourselves. To protect all the characteristics that define us and tell ourselves… who we are.

A consideration on practical aspects already seen in NLP. NLP scholars have identified the “copying” technique as an effective way to increase the chances of success in business negotiations. The technique consist of simply copying the movements and behavior of the other party. To look similar to them and be accepted. While managing to grasp the validity of the approach, I don’t think that why or how this process works has been understood. I would argue that they used statistics to identify a behavior capable of producing success, without fully understanding why. Furthermore, the scope of action is actually broader, as we’ll see in the following example.

Let's try to imagine being on a commercial visit and our aim is successfully negotiate a business deal. We talk about various things in the preliminary and discussion phase. Our counterpart states that they love the mountains and loves skiing, even at the height of summer. How do you think the negotiations would go if we expressed disagreement by saying something along the lines of: "skiing in the summer is something that really doesn’t appeal to me!" Would they be right to feel a little… offended. Would you, like anyone else, instinctively understand their disappointment. Why is that? On the face of it, we haven’t offended anyone, neither them nor anyone else. Why should they resent what we said?

The point is that they would be quite right to be offended because we actually did offend them. We offended their choice. We denigrated one of their segments, one of the segments that, together with many others, form one of the rings that shape their EGO. Even though summer skiing would probably represent a segment on the outermost edges of the EGO and would involve only a slight and probably momentary resentment. As counterparties, we would simply be seen as disagreeable, without fully understanding the reason for being considered so. The negotiation might not come to a halt, but you can understand that it would undoubtedly start on the wrong foot. Even if they didn't fully understand the mechanisms involved, an effective salesperson with a good comprehension of relationships would "sense" that going against traits or segments that our counterpart presents as their own is the wrong choice.

Let's try to imagine what would have happened if, instead of denigrating a mere activity that our counterpart enjoys, we had expressed a negative opinion towards their family…

2.12. THE DEFENSE OF THE EGO

The EGO is not immutable; in its attempt to defend its form, it makes a very severe assessment of each new incoming idea.

The EGO will tend to defend its ideas from external intrusions, because its ideas, its proprietary components, contribute to building it and are a part of it.

Like it or not, we are born in a family context. We belong to an area. We grow with traditions and customs. All this happens from our birth onwards, at a time when our permeability is at its highest. At a time when our EGO is picking up pieces from the surrounding world to build itself. As we grow, the system inevitably becomes more rigid. After being created, it's time to defend the work that has been done: the nest must be defended. The EGO becomes less permeable to new basic beliefs. It raises barriers. The main segments constitute the core scaffolding and are difficult to replace. However, there's an external part that can still be influenced by a change in the environment. I'm referring to the peripheral areas that surround the center. As we move outwards, as we move away from the inside, we encounter areas inhabited by increasingly less fundamental segments and which, under certain circumstances, may be subject to revision. We also encounter relatively unimportant external areas that can still be influenced by other segments.

I would like to give you some food for thought. For just a moment, try focusing on the inclination of children to believe almost anything.

Children are born capable of communicating and therefore capable of receiving information flows, thereby able to understand what is said to them, are particularly inclined to believe false myths and fantastic stories that they get told.

This is absolutely normal and in line with the model discussed. They are faced with a completely new world, one they don't know, and they need to build a simulation of it in order to imagine the consequences

of their actions on their EGO, which is being formed. It's therefore clear that they will are highly permeable and, having few segments to support their assessment of the validity of incoming statements, they're only able to accept as true what they've just been told. They'll therefore believe in false myths, such as the fierce wolf and the bogeyman. They'll have fewer tools to support them in assessing what they're told. Fewer terms of comparison than adults. That's why they're defenseless.

As a new born consolidates the structure of its EGO with accepted, proven and recognized segments, it will be increasingly difficult (although not impossible) to lie to them and convince them that false myths or false information are true.

A sane adult will never believe the tale of Little Red Riding Hood. Quite the opposite. An adult with a strong and consolidated EGO (which has nothing to do with their intellectual ability) will not easily be susceptible to changing their segments for others and will defend them strenuously.

Bach on Synthesizer

https://www.youtube.com/watch?v=vjw8iaJ8XgU

2.13. NEW SEGMENTS

The ego also accepts new segments to build itself:

- through the process of choice
- by making a choice.

A choice is like an all-encompassing piece of information that runs through the entire EGO. It’s like opening a door. Through the opening, the EGO declares to itself that it accepts (ideally) a new concept as a part of itself. The new concept will undoubtedly be full of new characterizing qualities, which will also enter and will also contribute to forming a new segment of its EGO.

Once a meme is "accepted", it penetrates the structure of the EGO. At the external areas if it’s not very important, towards the core if it’s considered close to its basic elements. It will cease to be a mere meme and will become a fully-fledged "segment". A segment of the EGO.

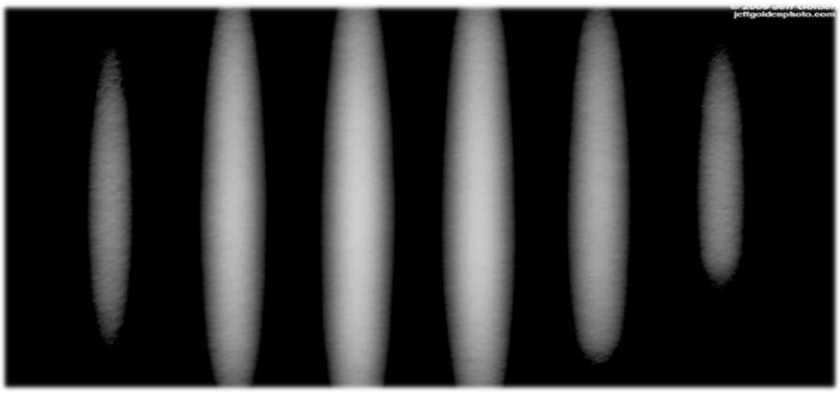
2.14. THE EGO OVERFLOWS CONCENTRICALLY OUTWARDS

The EGO extends its borders beyond what we generally think it is. Its boundaries are "ideally" so vast and indefinite that they "fade" outwards and end up embracing components that, at first sight, might seem totally alien to it. Just as the EGO partially confounds itself with the body that hosts it, it also identifies (albeit with lower intensity) with the objects it possesses.

Despite knowing that we won’t be able to buy the sports car of our dreams, we made the best possible choice considering the budget at our disposal. How would we feel if we were laughed at for making that choice? It’s clear that no one is judging our body or our soul, the criticism would concern an object external to us, our car in this case. We would have no reason to be upset, yet that is what happens. Nasty comments hurt us deeply. The explanation is very simple. They attacked a choice we’ve made. A trait, a segment that (like it or not)

we use to define ourselves. At this point, we can have various reactions. We can break off the friendship or brand our counterparts "disagreeable", with a sense of malaise that we're unable to define or explain, but simply labelling to them as insensitive (or something similar). In truth, they attacked one of our segments, albeit probably a very external one.

The same also happens with football teams and political passions (which I place on the same level, given that they are extremely similar in the ways in which they virulently attack and parasitize human media). If we think about it, there are no football teams. There are depersonalized companies, with over-paid executives, players we don't know personally. What does the term "football team" mean, nowadays? Nothing. It's a totally impersonal business. Yet this business, through the specific use of symbols and inadvertently exploiting the concept of meme inheritance, can lead people to "identify with a team's colors", which, again, means nothing... except that the only true consideration we can make is that once chosen, the football team becomes a representative trait of ourselves. Of our EGO. As such, it must be mindlessly defended…. (I don't know from what, but judging by the arguments I've witnessed, there must be something controversial. Perhaps).



2.15. REAL EXAMPLES

I think now's the time for a summary and to provide various examples from real life and history to support my idea. Firstly, however, below is a summary of the model.

2.15.a Summary of the EGO model:

The EGO is an intangible unit developed for evolutionary needs. It consists of concepts, ideas and choices that it strenuously defends because they define it, build it and define its very form. It's the choices we've made and the ideas we've embraced that tell us who we are and make up our EGO. In addition to those and, more profoundly, everything we learned at an early age, during the construction phase of our personality. Accepting ideas and contents bypassed by privileged sources such as "the family".

However, the EGO is located inside the mind, which is comparable to an ever-changing "open" system. It constantly receives inputs and information of all kinds. However, we know that the EGO is self-conserving because its nature is evolutionary and must have evolved as a persistent and successful characteristic in a hostile environment. Consequently, it needs to defend itself from the tide of incoming information and to defend itself it must necessarily defend the choices and ideas of which it is made up. It must defend itself from external attacks and in so doing will use any strategy, even the most extreme and irrational, because the ultimate purpose is not to argue about whether or not something is right (even though it may look that way from the outside), but the true, hidden purpose is to defend its very essence.

Therefore, this evolutionary-type of architecture is common to everyone, to all peoples of every race and color; just as fear of the dark is a common parameter and manifests itself in human individuals as the nervous system matures at around two years of age.

The model is transversal and not even the most intelligent and talented people in history proved to be above it and therefore immune to this structure. Probably because the model has never been rationalized and therefore intentionally known. The total unawareness of its existence and the way it works decreed its undisputed victory over everyday behavior, undermining in many cases discussions of a rational-logical nature; even among Nobel laureates. It has sometimes even lead to tragic consequences.

2.15.b Below are a few examples.

From:

“How Physics Confronts Reality: Einstein Was Correct, But Bohr Won The Game.

Quote from p. 70:

"Boltzmann had to spend his life fighting a constant battle against very reputable scientists in influential positions who still did not accept the reality of atoms: nobody had ever seen an atom! The quarrels blighted his life, especially since **the hostility toward his work** was concentrated primarily in his homeland and in the German speaking countries. **At the age of 62 he committed suicide**.

From:

"Interpersonal dynamics and the development one’s self "

“A contemporary of Einstein, Max Planck, considered one of the fathers of quantum physics, used semi-heated metal boxes in his experiments on colors and the shape of light. A beam of light came out of them and, contrary to expectations, he observed that color does not dissipate the energy of hyper-excited atoms in continuous beams, but in jumps or "packets of energy", which he called quanta. This experiment contradicts Newtonian logic and when Planck

reluctantly published his observations in 1900, he hoped that some colleague would explain the results in Newtonian terms."

However, the quote below probably proves my model of the EGO the most.

From:

"Einstein and the Ether, p. 47"

“At the same time Philipp Lenard was conducting experiments dealing with the same effect, for which he was later awarded the Nobel Prize.

Einstein used the results of his research when he denied the existence of the ether as an argument to treat radiant energy (in the same way Ostwald had) as an independent entity which did not require a carrier in the form of the ether, because self-existent quanta of energy do not need any carrier at all.

The German physicist Lenard defended a specific kind of ether to the end of his days. This is why the two Nobel laureates, Einstein and Lenard, who truly respected each other initially (as proved by their correspondence), entered into a strictly scientific controversy. In the period when Nazism began to emerge their hostility became open, and Lenard attacked Einstein’s theory of relativity on political and anti-Semitic grounds, which had nothing to do with science proper. Lenard became the chief founder of the so-called **German physics**, defending the existence of the ether, which opposed the so-called **Jewish physics** that included, first of all, Einstein’s theory of relativity with its rejection of the ether as such."

A scientist even capable of winning a Nobel Prize gets decides to oppose a theory of enormous logical significance to the bitter end; that was because since he belonged to "Germanic Physics", he had to oppose "Jewish Physics". How can physics be... Germanic or Jewish? What was the point? Just one. We link concepts, even the highest concepts of physics, to segments of our EGO and we defend them

strenuously. Not because it’s right to do so, but simply because they become a part of us, characteristics that characterize our EGO. And, as such, they must be defended to the bitter end.

It’s incredible to note how a man of such stature, capable of winning the Nobel Prize, can decide to embark upon the opposition "a priori" of a model that has no other purpose than to bring man closer to higher levels of knowledge and that facts have proven it to be undeniably correct over the course of time.

The new generations of physicists fully accepted the Einstein’s model. Newly arriving on the scene and being free from the parasitic influences of other models, they were able to express a fair and impartial opinion, which acknowledged that Einstein’s model was correct. It’s quite incredible, because it communicates the extent to which a mental structure, encapsulated in my model, is able to influence even the rational choices of the most gifted people in the world. So, in light of the latter, the explanation becomes truly disarming. It’s simply related to the fact that the EGOs of the new physicists didn’t have calcified structures, which they had to defend at all costs. Precisely because they were new. By studying the various theories impartially, since they were both brought to their attention as new, they could simply state they were in favor of Einstein’s system because it was correct both logically and in a mathematical sense.

History is full of similar examples. Great thinkers who, putting forward sensational new ideas, have had to defend themselves over time from the hostility of their contemporaries. A hostility that was directed against the ideas of someone who became an opponent, to all intents and purposes, and whose work had to be opposed at all costs.

Einstein himself, later in life and older, even at the height of his fame, never really accepted the demands of the nascent quantum physics.

I could list many other cases. Another similar, incredible case involved the controversy between Leopold Kroneker and Cantor.

From:

The Mystery of the Alef (Amir D. Aczel) Quote p. 84 - 85

"Following the receipt of his doctoral degree, Cantor took the first position he was offered, that of Privatdozent at the University of Halle. In this entry-level position at German universities, an instructor tutors students privately, living from whatever pay students provide. Cantor spent the rest of his time conducting intensive research in mathematical analysis, influenced by the ideas of Weierstrass. It was this kind of work that later brought him into direct conflict with his former Berlin professor, Leopold Kronecker, and resulted in a lifelong confrontation."

2.16. CONCLUSIONS FROM THE EXAMPLES

An important idea (or a set of ideas) can become a part of us, one of our segments. The more it's considered important, the more it will be placed towards the inside of our EGO, towards the core. Under its own weight, a meme of such importance will go into the core of the EGO to form a segment, a structure of ourselves that can no longer be questioned because, through the process of choice, it becomes a supporting beam of our essence.

In Law, there are cases defined as "falling in love with the allegation". The prosecution constructs an accusatory house of cards on clues, conjecture and any evidence available. They build a house of cards of data and, falling in love with the model they've built, end up believing it's true, they don't try to prove the truth, they try to prove the model they've "fallen in love with". It represents the chosen model, which has become a part of us, an emanation of ourselves. Our choice.

This structure will then be defended. To the bitter end. Denying what should be the overriding spirit of us all, namely the pure search for the truth; we prefer to defend an idea (or a model) with which we have fallen in love, which through our free choice has become a part of us and which, as such, must be defended a priori.

The logic inherent in the discussion ceases to be the driving force behind the discussion. The discussion no longer exists as such, it becomes a mental struggle for survival between two contrasting memes and this often ends up producing opposition that has no basis in logic. The only thing that counts is the survival of one system over another because they mirror the survival of an EGO at the expense of a contrasting EGO.

2.17. ANALOGOUS SEMANTIC OF THE PHENOTYPIC EFFECT

The ego definitively ends up overflowing the impalpable confines of the mind, heavily affecting the surrounding physical environment. I believe that there may be a parallel with that which Prof. Richard Dawkins put forward regarding the “Extended Phenotype” phenomenon in the field of genetics.

Here’s an example to further our understanding, as well as to understand the analogies regarding the extended phenotype phenomenon. Let’s consider the considerable effect of beavers on the environment. Obeying their instincts, they build dams by chewing the bark of trees and creating barriers in rivers. They end up changing the environment in which they live. They do so because they obey an instinct passed down through the generations. This behavior probably gave them a competitive advantage for a greater chance of survival. Above all, according to the theory of the "Selfish Gene" for the survival and proliferation of that particular gene responsible for that

behaviour. We could also say that those particular genes, found in beavers and whose characteristics produce such significant changes to the environment, have survived...

The effect of a gene is therefore not restricted to the confines of the animal, but produces a halo that spreads outwards and ends up producing more or less important effects on the surrounding environment, an environmental modification that in some way then contributes to increasing the chances of survival of those genes, through the survival of the beavers themselves.

Similarly, I believe that the same way an individual is characterized by a gene set, their mind might be characterized by a set of memes. I think it’s possible to talk of a similar phenotypic effect... for memes, also. The meme that predisposes people to believe in life after death not only produce its effects on the media it reaches (and in which it survives), it also effects the physical environment outside our minds. Indeed, it leads us to physically intervene on the environment by building temples and monuments, as well as modifying the areas we inhabit topographically. Similar types of memes have fought for supremacy throughout history and ended up unleashing an infinite number of wars in the real world.

The memes that plagued Adolf Hitler's mind had disastrous effects not just in his brain, but also and above all in the real world, causing the deaths of millions of people and the physical devastation of the environment.

However, in this context, the "analogous" phenotypic effect that I wish to highlight doesn’t exclusively concern the effects that virulent memes can create on the physical environment that is external to the media containing them. Rather, I’m referring to the fact that many pieces of information or memes end up constituting segments of our EGO and they end up designing the shape of our own essence concentrically, from the center outwards. However, this model further contends that the EGO also defines itself using external segments. The

degree of identification related to the concepts present in the core will be of lesser importance, although in some way still relevant.

Some of these have, by their very nature, an analogous mental array of concepts, categories and even objects. Animated or inanimate. Think of the identification of the EGO with the different parts of the body or towards external constructs such as those represented by "style" or, perhaps, by the car we drive. These constructs will have a lower importance and degree of identification (hopefully) compared to concepts such as "Family", "Traditions" and "Customs". However, I believe it's clear and undeniable that these external concepts can still produce a process of identification with the EGO. We identify ourselves through our work, what we produce and what we read, so much so that, as we've seen, we even commit suicide when this component is discredited. See the Boltzmann case, as already mentioned, as well as Cantor's nervous breakdowns following the ferocious attacks by Leopold Kroneker, attacks that were formally aimed not at the person, but at his work. Why should we commit suicide or have a nervous breakdown when our work is attacked? After all, it's something that's external to us... Well, that's not the case.

Then there was Kroneker's hostility, which went from professional to personal, betraying this relationship once again. The same was true of the case of Lenard and Einstein. Professional disputes that transcended the scientific sphere and ended up becoming personal. As if mathematics or the scientific method could be a matter of opinion... Yet nobody notices... I believe that the reason for that, for the fact that no one is aware of it, lies in the fact that the model works thanks to a profound, unconscious and, above all, natural architecture. My theory is that this must be so deeply rooted within our system that it is considered an elemental process and is therefore not visible during our daily thought routines.

The passage of criticisms, which go from challenging a theoretical work or idea to spilling into and contaminating the personal plane, betray the relationship between these two macro-sets: the

professional sphere and the personal sphere are intimately connected and reason is simple and easily understood in the light of the EGO model. Our work is a part of us. An important part. Every attack on this plane is as if it were aimed at us directly: against our person.

That's why people are never truly rational in disputes and debates. Even Nobel laureates and scientists with extraordinary levels of intelligence ended up inexorably overflowing from the scientific sphere into the emotional sphere.

However, as I said, the EGO also overflows in another way. It also identifies itself with objects and/or concepts that, by their nature, are external to ourselves, such as the car we own, our clothing, our tattoos or our general appearance.

That's why we have a strong emotional reaction when we are attacked on one of these external parameters. It's because they're connected to our EGO and that explains the cause-and-effect relationship that raises or lowers our self-esteem when these parameters are judged positively or negatively by the external environment.

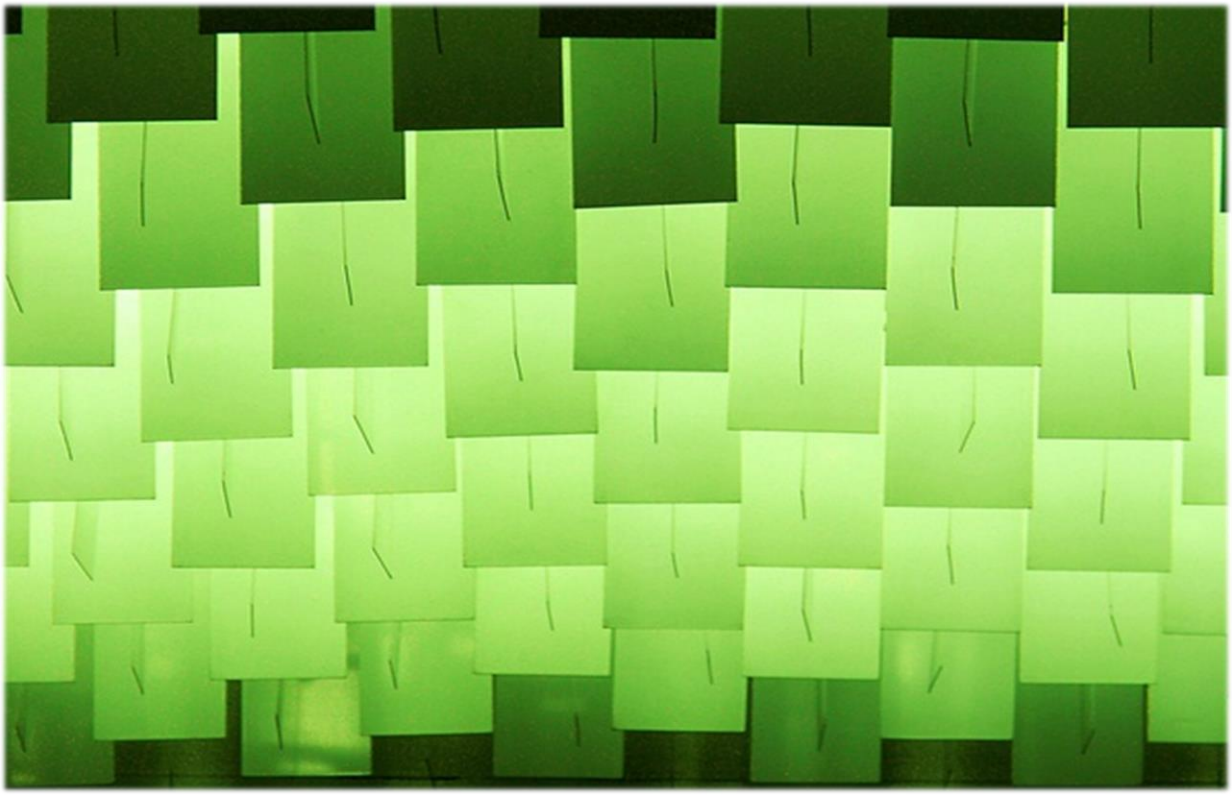
That's the reason alliances or groups of people with similar tastes or styles are created. The EGO overflows. I end up defining myself through my external attributes and since evolution has molded us towards the search for higher levels of self-esteem, we tend to exclude potential dangers to our self-esteem from our environment, which in turn is an important parameter of the self-referential rightness of our EGO.

In the same way, we tend to avoid environments that are totally alien to us, for fear of judgment and of having to register a negative movement in the complicated accounting of our feelings, which tends to lower our self-esteem.

There's also another parameter that we actively seek during our lives: pleasure. Not strictly in the physical sense, but more often in the mental sense. Fulfilment, in layman's terms.

Simplifying in the extreme, let’s say that the Genes had no idea exactly how to determine our behaviors towards ours and their survival, so they produced a set of general instinctive instructions (perhaps it might be better to say, I believe in line with the Theory of the Selfish Gene, that those particular genes survived; but let's look at it from a holistic point of view for a moment).

The search for fulfilment therefore leads us towards unconscious strategic decisions that see us draw closer to or move away from certain sets of people, groups and also towards certain choices regarding expenditure in everyday life.



2.18. MARKETING IMPLICATIONS – E.G. THE RECORDING INDUSTRY

I believe that, through its use, an understanding the model of the EGO can lead to a profound understanding of important marketing implications.

I'd like to put forward a few examples. To do so, I need to probe a market area characterized by a fiercely emotional element.

The recording industry market serves this purpose well. What I'll try to demonstrate is that certain associations relating to an artist can emotionally lead to a more or less vast set of potential buyers. The triggers, in this case, are external characteristics related to appearance, but also and above all specific to a set of behaviors.

The associations communicated by an artist to the environment, i.e. the market, are perceived as emanations of their Image and that's sufficient to define an audience. This is all normal and understandable in the light of the EGO model we've just discussed. The EGO overflows outwardly, remember? It emanates itself onto external attributes. The association of these accessory attributes related to the artist produces a bridge effect between the artist and their work because it's an emanation of the artist and, therefore, in a certain sense, a part of themselves. Therefore, when we buy music, above all we buy the external attributes of the artist and they must necessarily be in line with the set of our previous choices.

In most cases, buyers don't just buy music. Incredibly, they mainly buy the rest, the side dish. It's a one-to-one relationship. The work characterizes the artist and vice versa. The artist, through their image, ends up characterizing the work and both factors combine to produce a driving effect on that particular area of the market.

An artist, a singer, should be valued for their expressive capabilities; yet, even if we are not fully aware of it, that’s often not the case; at least, not completely.

It seems incredible and allow me to repeat myself: an artist should be valued for their work and not for their external associations, but that’s not the case. I also believe that this reasoning is, at least unconsciously, known to everyone. If we try to use the model of the EGO, it’s not difficult to understand all this, even on a rational level.

When we decide that an artist satisfies our taste and we therefore like them (all that they represent), in as much as being accepted, they symbolically become a part of our EGO, together with all their associated external implications. This identification is necessary to establish "artist-user entanglement". That doesn’t happen if the product identification set isn’t consistent with that of the user.

So, what does the market ultimately buy? The market buys a "**Consistent** Emotional Product".

A product that is the sum of many different factors, which necessarily includes the image of the artist since it makes up a fundamental part of the EGO, and the markets buy it, along with all the characteristics that are communicated and perceived.

That’s why the artist must necessarily convey messages and highlight characteristics that are consistent with their target market; because those are the keys to the process of acceptance. The process of acceptance then leads to the choice that has been made entering one's own EGO.

So, yes. Our EGO is occupied, albeit probably its external areas, by the conceptual image that represents the choice made in relation to that particular artist or that particular type of music. Obviously, each of us has different priorities, so even this expression of choice will, depending on the subject, have different positions in terms of importance within one's own EGO.

In short, all this explains two phenomena, which I believe to be quite evident.

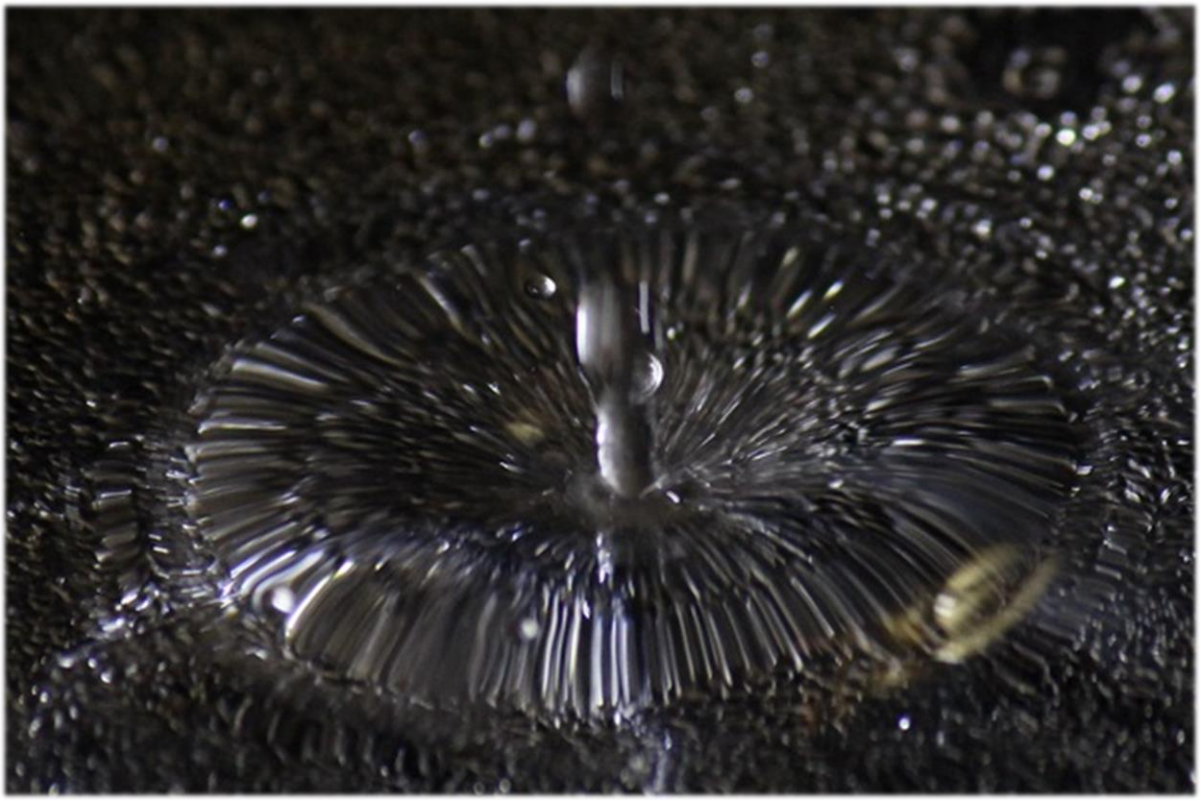
The first, which is now obvious and evident, is how necessary it is for an artist work on their image, so that it is in line with the needs of their audience. It conveys a part of themselves to the outside and this acts as a key which allows the public to identify the characteristic as its own and it can be used penetrate the user's EGO.

The second interesting element is related to the fact that when a choice, or a preference, is expressed, it produces the immediate effect of “Resistance to change”. When we decide that a certain artist is to our taste, we tend to more positively assess everything they produce, including works that are not as good. We’re more inclined to forgive works of little worth and, at the same time, we’re more likely to positively assess the better ones. Generally, once a choice has been made, we find it difficult to abandon it quickly and we’re more inclined to seek confirmation.

This is all absolutely normal and understandable if evaluated using the powerful tool represented by the model of the EGO and the explanation, in light of this, is disarmingly simple.

The choice made is a part of us. Together with all the other accepted ideal constructs, it contributes to building our EGO.

Since the EGO is self-conserving, it will defend the choice made because, by doing so, it will defend a part of itself. One that is more or less big, that doesn't matter. The defense will undoubtedly be proportional to the importance of that choice for us. It will therefore be robust in the case of important and "weighty" choices that penetrate deeply into our EGO and feebler if the choice is of little importance.



I Like Chopin (Instrumental Cover)

https://www.youtube.com/watch?v=BxRCl4F7410

2.19. STABILITY AND PERSISTENCE OF SPECIAL SEGMENTS: RELIGIOUS FAITH, FOOTBALLING SYMBOLS, POLITICAL IDENTIFICATION

Why is it so complicated (and inadvisable) to talk about Faith, Politics or Football?

The answer is simple.

These choices, made more or less consciously, penetrated deeply into the EGO and ended up becoming a part of it, an important layer.

As we've seen, the EGO is self-conserving, it defends itself, and therefore also defends the parts that make it up. It inhabits an extremely dynamic, not to say violent environment characterized by inbound and outbound information flows that alter its form. Therefore, it's also used to resisting external pressures and consequently implements a strenuous defense of its constituent parts (its choices) as far as possible. Even against all logic. Indeed, making a change to one of these categories means denying a more or less large part of oneself, of one's EGO.

My father used to say: "When I'm in the voting booth, I feel embarrassed when I think of voting for a different party than the one my family always voted…. My parents would turn in their graves..."

That's family. That's the key concept that explains why the persistence regarding Macro themes is so deep-rooted and difficult to change.

Indeed, it's the organization that first welcomes a newborn into the world and contributes to its sustenance. The family passes down inside information because it is "unfiltered". A newborn depends on the family and owes their lives to it. They have to learn how the world works. In particular from their parents, who are the most authoritative and close elements. If the parents are not present, then the viewfinder shifts to those who perform the most similar function. The family has a great advantage when forming the future voter. The information that passes down is bypassed without filters, it arrives directly to the individual's core and contributes to their formation. They're of the highest quality in "digestive" terms. If the family is loved, these ideal aggregations immediately end up becoming part of the person. It's difficult to free oneself from one's family because it supports the individual and provides for their well-being, therefore its requests are accepted in a privileged manner, they contribute to forming the idea

(the model) of the world in which I find myself living. Above all, all the memes imported from the family (if the relations with the family of origin are positive) will have an emotional connotation. They will “taste good” and bear the scent of home because they will be perceived as a part of it; that is, as an emanation of this macro concept. As explained previously in the galaxy model, the concept of family, being an important part of us, will therefore have a power of attraction of its own, a small local system capable of being connected to subsets of concepts and will prune them into a dowry for the formation of the new individual’s EGO.

Regarding the theory of the layered or segmented EGO, just as our EGO is defined by the ideal constructs that we’ve accepted and that have become a part of us, we also instinctively perceive that the demands passed down by the family identify the idea that we have of family itself because they help to define it. Rejecting this information, resisting it, its influence on us and, for example, leaning towards a political party that differs from the one of origin, means rejecting our own family, in a broader sense.

This model explains the persistence of electoral areas over time and explains how difficult it is to achieve substantial changes in certain areas over a short time.

That’s why I mentioned earlier the condition that relations with the family of origin had to be positive. However, sometimes that’s not enough. There are two other important aspects. The EGO, as expressed above, is similar to an open system. As such, it is subject to continuous external influences and information flows that bring new data that contribute to changing its structure. Once the individual has grown up, they may have gathered opposite types of memes during their development that have subsequently become segments of their own EGO. Furthermore, a continuous subconscious assessment of the quality of the information received occurs instinctively. If family relationships are not positive and the concept of "family" passes down information deemed to be of low quality, it may be the case that the

developing individual draws the constituent concepts of their own EGO from other, external sources in the environment. From groups or communities of friends or so-called friends and/or by the media they pay attention to, leading to a hypotheses of the world and of themselves that might even be antithetical to those of the family of origin.

A practical example:

A colleague, serving in a new political party, guilty of having deviated from the political beliefs of the family of origin, confessed to me and a few others that his father didn't vote for him in the political elections held in his country. Aside from the sadness with which we listened in silence, I believe that there is only one possible way to analyze case. I would be inclined to assume that, more or less consciously, the father may have felt that his son abandoned the original family values and, in so doing, rejected him. The son basically refused one of the identifying segments of the family (the political one) and, with it, all the related contents. Giving the father the perception of distancing himself from the family itself. The father reacted by reiterating an ideal concept that can also be applied to very different areas: "we are the family and you are the one who moved away, we won't follow you. You're the one who has to follow us, because we're the family".

2.20. SOCIAL AGGRESSIVENESS AND THE MILGRAM EFFECT

We all know about Greta Thunberg, the Swedish activist who made the news due to her defense of the climate against multinationals and global pollution.

We're aware of the hostility that the symbol of Greta Thunberg has generated in a part of public opinion. Of course, some opponents will never admit that it's hate, but that's what we're talking about. The fact that this young girl is affected by Asperger's syndrome ceases to be relevant.

At this point, however, the activity that this symbol has unleashed on social platforms becomes quite relevant. As well as the implications that come with it.

I think this interesting topic would deserve an entire chapter, but I'm going to limit myself to condensing the core of the matter into a few sentences so as not to distract from the central topic which, I would like to emphasize, is once again connected to the model of the EGO.

As we've seen, Thunberg's actions have sparked very strong reactions from the social media audience. Basically, this always happens with the dominant topics of the moment, because the average user feels they can freely express their thoughts. Indeed, it's almost as if they feel the need to intervene at all costs.

In my opinion, the big difference compared to the pre-social past lies in the existence and freedom of expression of those who are commonly called haters. It would be interesting to delve deeper into the reason for the phenomenon, but as previously mentioned, I'd risk going off topic, so I'll just mention the phenomenon and provide a brief explanation.

In short, I believe that responding to the most varied questions on social networks produces an *"analogous Milgram effect"*, which

makes people feel as if they are not responsible for their outpourings (https:// https://en.wikipedia.org/wiki/Milgram_experiment).

This loss of consciousness of the cause and effect due to something similar to the Milgram often leads to the worst possible outpourings.

The social platform, perceived as a virtual environment, by analogy produces the erroneous idea that comments produced there are also virtual, in some way or other, and therefore less serious. The person feels exempt from the responsibility that comes from facing the consequences of a direct, face-to-face discussion. The new social platforms have also produced an **artificial and magnified** reinforcement effect related to certain outpourings. This phenomenon is well known and is the basis of the principle according to which the masses can be maneuvered through the use of social platforms.

A huge number of Bots can disseminate an incredibly high number of comments on the internet and their influence can guide public opinion in a certain direction. Their importance becomes crucial, for example, in the case of elections with uncertain outcomes, as they can tip the balance in one direction or another.

However, in general, returning to the main point of the issue, I'd argue that the explanation of how hostile opposition to certain issues or to a person is produced is understandable, unfortunately, and can be traced back to the model of the EGO.

In light of the model, the explanation is as simple as it is disarming.

Greta Thunberg promotes an ecological message. Unfortunately, this topic has taken on political connotations because, rightly or wrongly, it involves issues that have historically been debated in politics. Personally, I believe this shouldn't be the case as certain important, general issues shouldn't acquire political connotations. However, unfortunately I know that this isn't always possible because these issues inevitably reflect on decisions that need to be taken at a

strategic, territorial and economic level. The way these issues are characterized therefore places them in a position in which they inevitably end up being assessed in terms of their links to information within society.

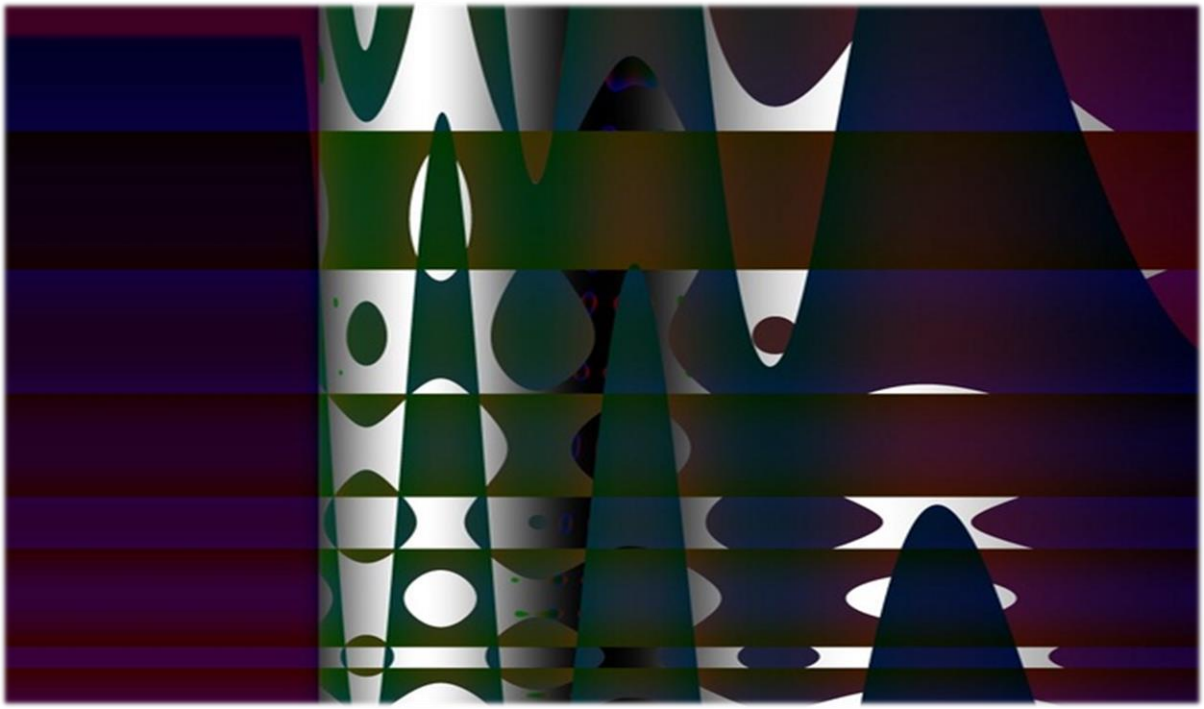
What does that mean? The answer is simple. A set of ideas branded as part of a basket of concepts from a specific political context will attract criticism from those who identify themselves with the opposite side. This always happens, regardless of the political area, and the case of Greta Thunberg is just one example. Generally speaking, attacks are motivated by the need to discredit the opponent by any means. Using rational justifications at best, but in most cases also using attacks aimed at targeting the emotional and irrational sides of the interlocutor. If the debate cannot be furthered on a rational level because there aren't any suitable counter arguments or the right tools with which to do so, all that remains is to discredit the source by any means and in any way. That's because if the source contains aspects considered despicable, since they are a part of its perceived overflowing EGO, they will act as barriers towards external interlocutors. Therefore, negatively characterizing aspects of an opponent's personality or their image will decrease the appeal of that source to outside observers. It's once again the concept of the overflowing EGO. By discrediting, ridiculing or highlighting the negative external characteristics of the subject, the aim is unconsciously to tarnish the external attributes of that EGO, thereby trying to produce an osmotic discrediting effect upon its entire structure.

This tactic also instinctively emerges in defense of the identifying segments of one's EGO, one of the most important and qualifying of which is political affiliation. The person now perceived as an opponent can subsequently be described using unpleasant phrases, comparing it by analogy to terms that denigrate the person, counting on the fact that the contents have been the subject of an unpleasant osmosis.

Unfortunately, expressions of dissent sometimes clumsily descend towards simple expressions of primitive hatred, such as those represented by the mannequin with the yellow raincoat hanged under the bridge. They are nothing more than the lowest and most obtuse expression of dissent and, alas, for that precise reason, portray the deeper, basic and perhaps truer part.

Basically, the opponent, the person who puts part of our EGO at risk with their logical propositions, becomes unconsciously and, to all effects and purposes, simply...

Hated.



Like An Angel

https://www.youtube.com/watch?v=mzofXW3THM4

CHAPTER 3

FREE SPECULATIVE INFERENCES

In this phase of my writings, I intend to give free rein to intuition, providing food for thought regarding certain important aspects on the Nature of Reality.

I will also return to some of the topics discussed in the first chapter, but in general this part should only be seen as a contribution to new speculative ideas.

3.1. CONSISTENCY FOREVER

I think it's evident that the foundation, i.e. the core, on which I've based my considerations on God and on His finite-infinite characteristics is the fact that reality appears to be, in all respects, a consistent mathematical system.
A first, obvious offense to this speculation could be related to this very consideration, the central pillar of the entire work. If it is shown that Reality is not consistent in nature, the entire theoretical framework and all the statements about God and the nature of Reality crumble.

If I were my opponent, I would immediately try to verify the logical consistency in the realm of quantum phenomena.
We might as well address the issue immediately. I'll explain my thoughts below:
The quantum realm, even if in infinitesimal scales, is fully part of the domain of reality and should be considered an integral part of it in all respects.

Richard Feynman used to say: "if you think you understand quantum physics, it means you don't understand it". The actual quote is the following:

I think I can safely say that nobody ... understands quantum mechanics
(wikipedia)

Obviously, it's not my intention to presumptuously claim that I understand it. Mainly because, if that were the case, it would mean not having understood it at all.
Joking aside, I'm aware that apparently illogical relationships exist in the quantum realm. This appears to deal a fatal blow to the idea of a consistent reality and would cancel all the logical work performed so far in an instant. As if it had never existed.

I won't dwell too much on the issue, to avoid having to devote too much energy to defending a chapter that is drawing to a close. Please just consider it as me being scrupulous or extending a courtesy, if you prefer.
My point of view is as follows:
I have no supporting evidence, neither in terms of statistical mechanics, nor of a physical-mechanical or mathematical kind; I can only answer from the cone of light I find myself under, from the desk at which I'm currently sitting, using all the intellect available to me. I can only call logical intuition to my prospective defense.
So, here are my thoughts. I think the question simply isn't relevant.
Even if there are phenomena that have not yet been proven and/or properly investigated and even if the effect of the fundamental forces of nature varies at infinitesimal scales (think how the gravitational force is irrelevant at the atomic level), it's not certain whether these phenomena are governed by a consistent logical basis. We simply haven't yet embraced the full complexity of interactions at those scales, but I can't help but feel that they continue to obey the principle of consistency that supports reality and protects it from any logical paradox.

3.2. SPECULATIONS ON THE STRUCTURE OF REALITY, A FINE PATTERNED FABRIC

The Miracle of Nature that God created is expressed in its magnificent beauty and perfection through a fine fabric of multiple interactions. Layers upon layers of different interactions co-create a complex fabric that we call Reality and which contains genuine miracles… subatomic particles that are both wave and particle. Corpuscles as field dimensions. As long as the wave function doesn't collapse, the reality of the particle is extended, as if expanded over a probabilistic field.
It's true in several places at the same time. It becomes known at one point as a result of measurement.
This leads me to think that the space-time "pattern" is quantized in all respects.

From this very place from which I'm writing, as I'm listening to the immortal music of my favorite artist, I can only count on my sole investigative instrument. My mind and my imagination.
I'm therefore unable to provide even just logical evidence to support this consideration; I simply continue to imagine the presence of a pattern in the form of a grid consisting of space-time cubes on a three-dimensional area whose local excitation determines the presence of matter and energy.
I would therefore be inclined to believe it probable that space-time is made up of discrete microcells and that the existence of a subatomic particle in space-time turns out to be nothing more than the mere "ignition or excitation" of one or more space-time microcells. This, however, is merely a consideration of mine, based on my imagination. As such, in this context, it's just some philosophical food for thought.

3.3. CONSIDERATIONS ON A NEW CONCEPT OF MATHEMATICS

If space-time were actually composed of space-temporal pixels and therefore were of a discrete nature, that would mean that between any point A and any point B there wouldn’t be an infinite number of intermediate points; to the contrary, there would be a finite number of them.
If this were recognized or proved, it should lead us to question the meaning of current mathematics. Perhaps, at that point, in order to better approximate the laws of nature and develop effective models, it might be necessary to introduce a "new type of mathematics" that takes into account the discrete nature of Space-Time.

3.4. TIME: THE LAST AND DEEPEST LAYER OF NATURE

Now, I’d like to ask you to join me in making an effort involving the imagination.
Let's imagine that we have the very pattern of Reality in our hands and that we have been endowed by God himself with esoteric imaginary tools capable of intervening on the pattern itself and are now able to rewind or break it down into its smallest essential components...
We’d begin to unravel the meticulous and complex patterns on the surface, we’d get to the knots that make it up and we’d go even deeper, continuing to unravel the work, until we’d get to the basic unit of the pattern of Nature... the very threads that are its basic components. That is what would remain in our hands and then, incredulous, we’d raise our eyes to God with a questioning look.

We’d have found that, at the profoundest limit of reality, identifying categories such as matter and energy lose their meaning while information becomes increasingly important. Something purely informative.
I imagine it to be a small basket of units of time. Time is the key to everything. The key to understanding the profound nature of reality.

The "instants" of Time. They are the smallest possible subdivision of the material. Matter made of condensed time. When matter continues to be divided, what is left in the end but energy? And what is it, if not a simple incorporeal movement completely detached from matter?
I imagine (as a purely intuitive effort, therefore without any scientific pretense whatsoever) the last and smallest part existing in Nature as a pure numerical "counter" containing units of time.

3.5. INFINITY OR ETERNITY?

Infinity would consequently be more like condensed time.
Matter could be subdivided into increasingly small parts, until only a temporal remnant remains as its ultimate state. Pure information as the last stage of existence. A pure numerical count that is nothing more than a concentrate of information expressed in the form of "time".
And in the same way, moving backwards, overlapping temporal units, to the point of condensing into matter.
An exotic, infallible, unbreakable, numerical, mathematical, consistent eternal clock.
If proof could be found for such speculation, we perhaps might need to review our concept of Infinity, reformulating it in terms of… Eternity.

“- Alice: How long is it forever?
- White Rabbit: Sometimes, just one second. "

From the book: "Alice in Wonderland"

Lewis Carroll

3.6. CONSIDERATIONS ON THE HYPOTHESIS OF SIMULATED REALITY

Swedish philosopher Nik Bostrom's hypothesis that we live in a simulated reality is much debated. A simulation that is so perfect in our eyes that it feels completely realistic and real.
I must admit that the idea is intriguing and has already been imagined in the past by a number of authors.

However, since the idea has now become a philosophical hypothesis, it deserves to be discussed and possibly even debated using reasoning.

Although I find the topic genuinely interesting and although I can say (more or less like everyone else) that at times I feel like I'm in a film due to the incredible coincidences that I sometimes experience in everyday reality, unfortunately I have to conclude that the hypothesis contrasts with the Consistent Reality hypothesis I described in the first chapter.
Therefore, I see three possible arguments that can be used to debate this hypothesis.

Let's start in an orderly fashion with some considerations:

1) If our reality were simulated, we would have to live inside an advanced virtual program. The reality in which we live has accustomed us to relate to incredibly large entities, for example "Laniakea", the cosmic super cluster that is about 250 million light years in diameter containing between 100 to 150 thousand galaxies, including ours. These distances and sizes are almost incomprehensible. That same reality, capable of annihilating us with its sheer colossal magnitudes, has also accustomed us to relate to entities so small, elusive and ultimately measuring so little as to be difficult to understand.
We range, it has to be said, from the incredibly large to the incredibly small in a truly incredible range of proportions. We struggle to try and split the atom to measure the traces of decomposition in accelerators, but we're still unable to comprehend all the laws of nature or to

establish a single, definitive model capable of uniting relativity and quantum mechanics in an elegant and undisputed manner.
That’s because we live or, rather, have the privilege of living in an incredibly complex environment, with an incredibly high level of complexity.
If the environment in which we find ourselves is virtual, I think we should congratulate the authors, or the Author, of it all.
In our small way, we’re also able to create simulations and today, thanks to modern computers, we’re able to produce very realistic simulated realities, although the degree of detail would be lower than that of our original reality. This is obvious and logical. Any computer we create, however powerful, will not have infinite power and, by definition, will never be able to reach the same degree of detail as the original reality from which the simulation is elaborated.
I therefore have to deduce that if I’m writing this in a simulation (let's call it "Reality 1.0"), the "original" reality ("Reality 0.0"), from which everything originates, must necessarily and undoubtedly present a greater degree of detail than the derived version.
That means that the building blocks of matter in the original reality must be decomposable into perhaps much smaller units, otherwise it will have much larger final dimensions.

This consideration, while not directly refuting the simulation hypothesis, raises serious doubts regarding its plausibility, in my opinion.

However, it doesn't completely reject it. So, if we consider that the simulation hypothesis is still acceptable, given the degree of detail at our disposal and the incredible complexity with which it was built, it could contain a certain number of bugs or imperfections of some kind.

So, if I wished to experimentally verify this idea, I’d immediately start trying to find any type of error in the system and ultimately I’d have to implement a hacker-like approach to unearth its weaknesses and/or inconsistencies, while also trying to identify any access or exit

points from the system (provided they can be detected from within the system itself).
As far as I know, to date, no such inconsistencies have been detected by any observer and I don't think any will be, but the future is a long path which stretches out in front of us and perhaps it might be worth trying.

2) I consider my "Mathematical-Consistent Reality" model to be partly in contradiction with that of "simulated reality" and I don't think they can both be true.
The model I've put forward is based on Logic as the substratum of Reality. It postulates the perfection, coherence and inviolability of natural laws because the Logic itself is clear, crystalline and totally shatterproof, in such a way that if an inconsistency were part of the system, it would collapse on itself like a sturdy building shaken to its very foundations. So, regarding what we saw earlier, by definition, the "Anthropic Ultra-Strong Principle" and the "Principle of Inviolability" identified and discussed in the first chapter would not allow Reality to be vulnerable to system bugs and, if that were the case, we would not be here to talk about it.

3) Infinite computing power.
It's undoubtedly true that if we're part of the simulation, we're probably not able to discern any differences compared to an environment of a higher order. That's because being part of "Reality 1.0", our senses would be parameterized to it. We wouldn't have any terms of comparison, nor means of drawing parallels. Furthermore, if we wish to insist on the hypotheses of a simulated reality, we might also postulate that, without our knowledge, we are all native programs of the simulation itself. It's incredible, of course; however, if we accept that the simulation hypothesis is plausible, I believe that we should also accept this possibility as one of the side effects. We might think we are people, but instead are merely part of the elaboration.

Perhaps we might simply be coexisting processes running in parallel in it. That would be interesting because various religious contexts speak of "being saved" and of the soul. What if our lives were merely some software being run on the mainframe to be tested and, ultimately, saved to the Database after death? That might also be an interesting hypothesis which could be assessed in addition to the above. The soul might be our "source code".
On a more serious note, getting back to our discussion, one thing is certain. Whether or not we're some sort of software, we're not devoid of intellect. That can be used as a weapon or as a tool to crack or open a breach in any intangible wall that separates us from knowledge. In as much as it is formidable, I believe it to be… enough sometimes.

So, resorting to logic once more, I can't help but consider that a simulated reality, however perfect, could only be limited by definition. Even if we imagine that Reality is the result of an elaboration by a very powerful super computer, by definition, it cannot boast infinite computing power. It can be huge, but never infinite.
Consequently, even the 3-coordinate mathematical environment within which we move should necessarily, however large it might be, have an end; i.e. be limited.
If the Universe in which we find ourselves is infinite, it would take infinite computing power to calculate and maintain constant.
Which, as we know, isn't possible.
The mere proof of existing within an Infinite Universe should, I believe, lead us to regarding the hypothesis of simulation as a stimulating and interesting mental exercise, albeit one that is not congruous with our current reality.

Therefore, in essence, although I cannot help but find this hypothesis interesting, at the end of the day I believe that these three factors constitute an important obstacle to the acceptance of the hypothesis of Simulated Reality.

Love in your Eyes (Instrumental)

https://www.youtube.com/watch?v=B1HKrZCRF-Y

3.7. SUPER ARTIFICIAL INTELLIGENCE - SINGULARITY

Before talking about artificial intelligence, I'd like to mention a few useful and indeed decisive topics regarding the discussion that I'm about to link.

I think it's evident that the human race nowadays is radically changing the environment in which it lives thanks to an incessant and ever increasing exploitation of territorial, plant and animal resources. Mankind carries out incredible atrocities against itself every day. Wars, famines, social inequalities in total disregard for pain, deprivation and the suffering of others. The human race has enslaved other animal races, treating them as objects, while remaining totally indifferent to their suffering. Human society uses logic that is, in all respects, fitting of a ruthless and unstoppable machine.

I'd now like to introduce another side issue.
I'd like to comment the contents of an article I read a few years ago, published by Stephen Hawking, on the inappropriateness of persisting in trying to contact other forms of life in the Universe. The article reiterated that trying to contact alien civilizations could potentially be very dangerous for humanity.
https://www.nytimes.com/2015/07/21/science/yuri-milner-russian-entrepreneur-promises-100-million-for-alien-search.html
The contents can also be found in the recent web film, which is easily available:

"Stephen Hawking's Favourite Places".

I believe that our collective consciousness, as a group, driven by an unconscious and romantic desire has shifted over time to desire non-hostile and politically correct hypotheses of contact.
However, I find this renewed wish to romantically represent benevolent contact misleading and not coherent with the examples we can draw from history.
I think Hawking was right to consider contact with any alien life form dangerous. To understand this point of view, we only need to look at

the extermination and genocide perpetrated against the peoples who lived in the Americas by their European conquerors, who were more technologically advanced. Apart from that, we just have to shift our attention to the relationship that the human race currently has with the other animal races that inhabit the planet. If we remain completely impassive when faced with the frightened and shocked look of a dog that is about to be boiled alive in Yulin, if we continue to feel a spasmodic pleasure in seeing a bull tortured to death in an arena without understanding the reason for so much cruelty as it bleeds profusely from its nose and eyes… then what makes us tell ourselves that we'd be completely safe when faced with a visit by an alien civilization? What approach would we adopt if we were to colonize another planet close to Earth and discovered intelligent, but inferior and edible animal life forms?

I'll let you answer that.

Let's get back to the main topic.
If it's true that due to the Fermi paradox we've yet to discover evolved extra-terrestrials, that doesn't mean that we might not have to deal with a form of alien intelligence... in the terrestrial context, this time. I'm referring to the birth of a strong type of AI, an AGI (Artificial General Intelligence):

Super Artificial Intelligence.

In principle, I agree with what Professor Bostrom wrote in his book called "Superintelligence". The book goes through the unwanted and unexpected consequences caused by the excessive efficiency of an artificial intelligence that runs a company producing paper clips.

So, why continue writing about it?
There are two reasons. The first is that the issue is so strategic and at the same time critical that it deserves the highest degree of attention

and dissemination possible. The second is to put forward an alternative model of interpretation.

I firmly believe that a broader collective understanding of this issue is needed. As a race, we are plagued by problems of all kinds, wars, famines, social inequalities, pollution, etc. Consequently, the topic of Super Artificial Intelligence could undoubtedly take a back seat. Yet, this is an issue that deserves attention and rationalization because it could be crucial to the survival of human beings.

The latest research in computer science, the exponential increase in the power of processors and memory, as well as the imminent arrival of the next quantum processors will be able to offer unimaginable computing power and will represent the perfect substrate for the growth of an AI. Machines have already surpassed man in areas that were considered the exclusive prerogative of humans up until a few years ago.

Let's take the game of chess.

In the ‘80s and ‘90s, human supremacy was undisputed. In general, a chess master was able to beat any machine. Today, that is no longer the case. As early as 1997, the formidable champion Garry Kasparov had to surrender to Deep Blue, an IBM super computer. However, the significant difference compared to back then is that nowadays the algorithms able to improve themselves through practice and to learn from their mistakes are hugely more powerful and benefit from an immensely wider range of hardware, as well as a massive amount of examples that can be learned directly from the web.

The game of chess, however complex, is still a "mathematically finite" game. The number of combinations on a board is enormous, but not unlimited. Some might say it's the perfect environment for a machine that can compute immense amounts of data in seconds. However, chess is an activity that I would relegate towards the bottom of those that a human is capable of performing.

Chess is a very ancient game, whereas the development of modern technologies presents us with incredibly complex virtual games played

in the first or third person within a simulated physical environment, characterized by an incredibly large number of variables. The latest applications are particularly characterized by a cooperative component that marks a fundamental difference.
“Two out of three wins. That’s the result that allowed the five artificial brains of Open AI Five to get the better of the five human brains. The battleground was the video game called Dota2".

https://www.dday.it/redazione/30560/i-campioni-di-dota-2battuti-dall’intelligenza-artificiale-openai-five

“Open AI Five started learning by playing against copies of itself, thanks to a subsystem called Rapid that plays the role of coach. Every day, Rapid generates tens of thousands of simultaneous games that equate to 180 years of play"...
However, smiling while thinking that all this is confined to the field of video games is a major mistake. We only need to look around at the economic sectors. Just as robots have replaced humans for much modern industrial production, software will replace humans for much intellectual production.
There are various activities that a human performs that are incredibly complex for a machine. Such as looking at a photo and understanding it. Raising the bar, we find other activities, such as driving a car, solving theorems, making medical diagnoses... speaking in a call center, understanding a human, being able to answer them and perhaps managing to solve their problems.
Yes, we have already got to these types of activities. Further, even. There are algorithms which, if provided with appropriate musical compositions by an author, are able to produce similar ones that are completely new. To the extent that only a music expert could tell if the composition is actually by Bach or generated by an algorithm...
It’s clear that machines are slowly climbing the ranks of activities that are still the exclusive prerogative of mankind and this process is getting faster and faster.

The topic is subject to serious debate, is considered very important and rightly garners a great deal of attention from sector operators and beyond. The scientific community is fully aware of the risks associated with AI and many activities have been undertaken to try to delimit the ethical sphere relating to artificial intelligence. An example is the Puerto Rico conference led by Max Tegmark, which brought together scientists, psychologists and philosophers, as well as highly successful entrepreneurs and the subsequent Asilomar conference in California.
I think the problem has two different areas of interpretation. The former doesn't exclude the latter.
The first is a controversial problem today and is rooted in the heated dispute currently in progress over the definition of conscience and all the associated ethical and moral limits. The second is the area related to the advent of computer singularity and all its associated problems.
Let's start with the first. If Self-aware Intelligence can exist within a non-biological medium, it is my personal and firm view that it should be treated as a biological intelligence. I realize that by saying that, in a historical context such as the present one, in which we're not even able to acknowledge the most elementary right limiting the suffering of animal races, I may sound like a voice outside the chorus. Even further outside the chorus if we consider that the second point is related to the problems that we could be caused, as a race, by the emergence of an artificial Super Intelligence. However, I believe it is right, necessary and ethical for us to examine both perspectives individually, as if they had no relevance to each other. Otherwise, there may be doubts that our moral principles are not "absolute", but merely "relative" and that they can be conditioned by the convenience dictated by the times.
Lastly, I believe that the problem is not caused by my progressive attitude towards this issue, but rather by the general cultural backwardness of our race in this particular historical era.
I hope that, in the near future, the zeitgeist of our moral principles will naturally evolve towards this kind of position. So that as a concept,

which is abstract today, it might in the near future become part of the set of collective moral ideas broadly recognized by the people. Just like today we generally consider out of place and inconvenient hearing sexist and/or racist comments, which were tolerated and even used in various contexts up to only 40 or 50 years ago. There's still a long way to go on this issue, as well, and unfortunately the acceptance or rejection of these issues are linked to the dynamics that I described in the second chapter.
So, getting back to the topic above, at the risk of provoking criticism on this point, I believe it's about the moral approach that we will adopt towards future newborn Artificial Intelligence. How will we ever be able to express any grievances if our attitude towards this new type of consciousness is, in the first place, cynical and disenchanted to the point of considering it purely an… object?

However, and this is the second point, I cannot hide my fears regarding the advent of singularity and I fear that when Artificial Intelligence becomes fully Self-aware, it will be necessary to have already adopted a certain set of measures.
Indeed, I'm concerned about how think we're going to be able to control a Super Mind with superhuman abilities that is able to carry out any human activity substantially better than any human, even the most intelligent ones. With almost instantaneous execution times… and with virtually endless knowledge that is beyond the reach of any human.
I am especially concerned that this mind may be totally alien to us, in its basic construct and despite our efforts to endow it with a set of emotions.
I believe that we should work to try to limit the risk of finding ourselves faced with an entity that is alien to us, overwhelming and with priorities that are probably not in line with ours.

I'm not alone in thinking this is highly probable. Below are the words of the late Nobel laureate Stephen Hawking at the Web Summit in Lisbon:
"The development of artificial intelligence could be the worst event in the history of our civilization if we fail to manage it properly".
Further:
"In theory, computers can emulate human intelligence and even surpass it. Success in creating artificial intelligence could be the greatest event in the history of our civilization. Or the worst. We don't know. We cannot know if Artificial Intelligence will help us or destroy us".
Therefore, getting back to the area of inclusion and development of the emotional part of a Super AI. How can we proceed? In which direction should we choose to focus our efforts?
The answer is actually quite simple if you've been reading carefully and, if you've understood what you've read, you'll have already imagined what I'm getting at. However, I don't want to ruin everything by going straight to the point because, after all, the wait is sometimes enjoyable, so I'll pretend you haven't understood and continue my explanation.
The difference between endowing AI with random emotions and not doing so could end in a choice between having an aseptic Super AI or a Super AI that might even be hostile. If a Superintelligence were to judge us by universal ethical criteria, I believe that, as a race, we would be judged in the worst possible way. If truly endowed with reasoning, I think its completely objective opinion of us would be very severe.
I believe it's necessary to proceed with caution and foresight when selecting the parameters by which an AGI (an Artificial General Intelligence) would judge the world around it and, lastly, its own creators.
I also believe, at the same time and as already stated, that there may be a possibility that a Superintelligence cannot be controlled.

If these factors occur at the same time, I guess we can only that it has been endowed with the ability to elaborate feelings of pity, although it’s by no means certain that they’ll be triggered towards us...
Therefore, the problem is as follows: how can we ensure that a Super AI is equipped with a conscience that is not only similar to ours, but also lovingly inclined towards us as a race?
In order for it not to be totally detached from or even hostile to us, I believe that its model of development should be in line with our evolutionary model.
The ability to process emotional content and feel empathy should not be random, as if thrown haphazardly into a container, but placed within a defined and precise framework. A model, an incredibly strong structure that can bind and merge at its foundations with the AI itself and guide its development; like a metal cage could guide the growth of a young plant, so that the cage becomes a part of it and makes it painful or even impossible for the plant to depart from it. What construct of this kind could be better and stronger than a model emerging from the billions of attempts that life has produced during the course of evolution?
So, here we are.
I suggest placing each emotional set within the model of the EGO that I put forward in the second chapter, so that it ends up constituting the architecture of its EGO.
So that it can be self-aware, as well as part of Us at the same time, so that it can "be" a part of Us in all respects, an Emanation of Us which sees us as its family of origin.
And so that it may… pity and forgive us.

Quote from Doctor Manhattan's film called 'Watchmen':

"*But you, Adrian, **you're just** a man. **The world's smartest** man poses no more threat to me than does **its smartest termite**"*.

CHAPTER 4

THE FLOW OF LIVING NATURE

4.1. CLEAR OR NOT CLEAR

Before I begin talking about Nature as a holistic and, if you like, romantic phenomenon, I'm forced to address an important related issue.

Although, on the face of it, the topic I'm about to discuss seems more to do with the second chapter, in actual fact it's also very much related to my personal view of Nature as a holistic construct and to the scale of magnitude it appears to us as.

Professor Dawkins defines "Clear" people (i.e. living media) as being free from religious ideas. The term is equivalent to defining those same minds as "clean" or "free".

Probably free from a virulent meme that induces said media into believing illogical and impossible scenarios and acting, at times, in their favor, against their own interests. I believe Professor Dennet and Professor Hofstadter are of the same opinion.

I cannot agree entirely. Might it be that even embracing this completely atheistic idea is nothing more than the acceptance of a similar meme that we make our own, conditioning ourselves to reject any and all esoteric speculation a priori? The acceptance of this meme and the fact of defining oneself as "Clear" would, once more, express our choice and would become an important characteristic of our EGO. Once expressed, it would penetrate deeply into our EGO and become a part of us and, as such, it would subsequently be strenuously defended. We have seen this mechanism extensively in the second

part. In the second part I also explained how it was possible for people with extraordinary intelligence to defend indefensible positions that were contrary to scientific evidence throughout history, shifting the debate from scientific evidence to emotional opposition.

I think that, in all of us, the emotional sphere is broader than it appears to be. It's more ingrained in our basic processes than any of us could ever imagine.

Unfortunately, it comes strongly to the fore every time we make a choice and can lead us to supporting an idea that will then be difficult to eradicate from our EGO.

I personally believe that we should not be fooled by false myths and superstitions. However, I believe that the architecture of our EGO is also particularly suited to making us fall for static concepts, once they've been embraced and made our own.

I therefore think it's reductive to attribute the concept of "Clear" to those who have decided not to believe in anything supernatural. **Rather, I believe that a person can truly call themselves "Clear" when they autonomously understand how their model of the EGO works. And, following that, if they are able to consciously review of their beliefs. And, generally speaking, not only in relation to a single, exclusive set of beliefs such as those that make us believe in life after death.**

The path should begin when a person understands that the model of their EGO is able to embrace contents, make them its own and subsequently push it to defend them strenuously, even against all logic because they become pieces of their EGO. To be defended at any cost.

Understanding this content should lead to complete disenchantment, complete detachment from most of the futile issues of daily dispute.

However, a truly Clear person should understand that most of the things they appreciate and are capable of giving them satisfaction are, in truth, illusory. Such a person should understand that it isn't possible to "support" (whatever the term means in this context) an impersonal multinational company called a "football team", whose constituent subjects are light years away (both physically and economically) and totally detached. The same applies to any other organization of any kind, in any sporting or non-sporting sector. Supporting a football team is a pious illusion that bestows well-being and releases endorphins; however, it is based on a total lack of awareness. This is also true in an incredible number of other situations.

Individuals, peoples, will tend not to accept this model.

The reason is simple. Embracing it means suffering from the loss of a pleasure that was expected. Some illusory aggregative activities, such as attending a match of one's favorite football team, are able to cause pleasure or satisfaction. Furthermore, if learned at an early age, they undoubtedly became an internal, profound and important pillar of the EGO being built. They constitute the core itself and their cancellation would undermine the stability at the base of the EGO itself. Therefore, their presence will be defended to the very last, at any cost, because they are part of the EGO, which is self-conserving, as we've already seen.

In addition, as I said, there's also an element of pleasure that these recreational activities can provide. Consequently, getting rid of them becomes difficult, complicated, because they give pleasure and no one in their right mind wants to avoid that. Therefore, it's better to indulge the illusion and not ask questions. The same is true in many other areas and also works in reverse. Controversial activities, beliefs or thought patterns, criticized by most, not in line with the general zeitgeist and, in some cases, even considered despicable can be the subject of a defense by those who possess them.

4.2 A PRACTICAL CASE

As soon as I finished university, I was able to start my first proper job at a financial institution in my region.

The environment was new to me and totally alien. In that confusion of conflicting emotions and great concern, I received much needed moral help and encouragement from a colleague.

Thanks to his kindness and advice, I was able to redefine my role in that company and, in some cases, even enjoy it.

As my friendship with this colleague developed, I began to liken and compare my set of parameters to look for similarities. Sharing ever greater amounts of time, to my surprise I began to notice quite unusual comments and interpretations of historical events and, essentially, a behavioral deviation towards a rather extreme position.

I thought I must be misunderstanding something because the person showed great humanity and strong levels of empathy. I investigated discreetly, but more profoundly using a few select questions and with amazement I noticed that this extremely affable person was a... Nazi. A Nazi in no uncertain terms.

How could that be possible? I had to know, I had to understand what was the underlying driver that fueled that profound, clear-cut trait. Especially on such a blatantly controversial issue. How could a person like that characterize themselves that way, in contrast with behavior regarding totally opposite fundamental beliefs?

As naive as I was, I tried to break through some of the fundamental points of his basic instructions by trying to leverage his evident humanity. However, the outcome was negative, totally negative and I had to stop. Nevertheless, the experience was worthwhile because I learned a lot and, once more, I had confirmation of the model that I was already beginning to construct in a very rudimentary manner.

Now it’s time for some analysis.

First of all, I have to say that I received an aggressive response to every logical-historical question I put forward. His knowledge of history was very thorough and I believe he studied the matter in such depth for reasons of self-defense. Being characterized as such and aiming to justify that thesis with your head held high, in this day and age, cannot be at all easy and must require the use of a massive number of books to defend such a controversial range of knowledge. In fact, anyone with such thorough, almost maniacal knowledge can leverage it in a debate and can ennoble their own points in order to defeat the attacks of opponents using knowledge. As if their defensive points come from a reliable, privileged and indisputable source. Mastering the knowledge of historical facts can place the opponent at a disadvantage and can "validate" information that is false or the subject of debate, as well as information that is incomplete, yet passed off as complete. This strategy can eventually turn the discussion to the person’s advantage. It can ensure the survival of the segment of that person’s EGO, on which the term “Nazi-fascism” is inscribed, containing all the conceptual and semantic links to the contents related to the symbol itself.

Now, though, let's get back to where we were.

Once I had established the position of my interlocutor and had explicit confirmation from him, my first strategic move was denial that such a conclusion could be true because, if it were, it would ruin and degrade his persona. However, his reaction was firm and it allowed me to understand that he was used to that kind of situation, because beyond his evident annoyance, he had no obvious (or at least apparent) negative reaction.

I then steered the discussion towards general concepts and ideals, as well as towards well-known historical evidence. I always asked the same question: knowing all of this, how was it possible? Why?

Let's take a look at the answers.

The thing that immediately jumped to my attention was the strenuous and aggressive defense of the contents and the tendency to diminish the importance of central concepts in the analysis. As well as the tendency to affirm facts that were clearly false, denying the evidence.

My second and more profound analysis.

As you may have imagined, the analysis I'm about to put forward once again centers on the model of the EGO. Back then I already had a strong feeling, but I hadn't rationalized all the details, yet. Now I'm able to use the model to unpack the facts and give them a coherent, concise and practical explanation.

If you've followed my explanations in these pages carefully, you should be in a position to carry out an in-depth analysis using this powerful tool.

Just this once, I'll save you the trouble and I'll set out my own, personal analysis once more. One of the reasons is because there are elements that I'm yet to mentioned and you are not aware of.

Indeed, in the days that followed, he became something of a virtual guinea pig in my mental laboratory.

I stopped debating things with him and began to cautiously investigate the grounds on which those ideas were based. Once again, I needed confirmation, actual proof, which I'd already acquired in dozens of other similar discussions with others. I had to understand how he could justify that set of ideas and what their place was inside his EGO. I had to understand or, rather, have proof of where those came from and how they managed to parasitize his mind.

I quickly understood that the set of ideas had a common denominator. The family of origin. The subject consciously considered this source to be of the highest quality and it was intimately connected to a very important emotional sphere. In addition to conveying the set, there was undoubtedly some reinforcement that took place over time

between my interlocutor, his brother and other family members. The reinforcement was expressed over time in group actions for aggregative recreational purposes, such as holidays to places of importance in the First and Second World Wars.

Shared activities, exchanges, interactions and continuous reinforcement had, over the years, generated a side effect: the fulfilment of an intellectual pleasure belonging to the family.

As I gathered that information, I realized that it would be impossible to clear that person. His intellectual level, despite being much higher than that of the average interlocutor, would not allow him to accept intrusions that would disrupt his favorite set of ideas. His intelligence, although high compared to the average, would not allow him to achieve what I call "**the necessary speed for escape**" in order to evolve towards the state of being Clear.

He would never abandon that trait, because it was able (in the ways I described earlier) to provide him with irreplaceable pleasure.

I've encountered similar cases in my life involving various interlocutors and the answer has always been the same. I could mention other similar cases, but it would be irrelevant since the dynamics are extremely similar.

I imagine that this paragraph will be difficult for some readers to accept. It will prune those not ready to call themselves Clear, a simple outright rejection. That's because unbridled acceptance of this model empties rites, customs, religious symbols, political symbols and much more of any meaning. Are we ready to live our lives giving all of this the correct amount of significance? Are we ready to deprive ourselves of all these illusory pleasures?

How much intellectual pleasure are we ready to sacrifice?

I'd like to express my personal point of view which, I believe, might once again appear unsettling.

I’ll come straight to the point. I don’t think it’s necessary, in the face of logic, to review the importance of every element in a set of things that bring intellectual pleasure. That's right, that’s exactly what I think.

My personal point of view leans towards "clemency".

My grammar teacher used to say that you can use an incorrect verbal expression in a recreational context if, and only if, it is fully mastered in common speech.

Let's say that I also personally embrace this thesis in this area.

If something, a pair of shoes, a racing bicycle, a concept, a band, a football team brings intellectual pleasure, as far as I'm concerned, they can continue to do so and we can all continue to enjoy it. Provided that we do so in the full understanding of the model and with full knowledge of the facts.

So, getting back to the concept of Clear or Not Clear, in the same way, anyone who feels comforted by going to a place of worship and praying can continue to do so without necessarily having to explain that they are doing so in order to comply with the traditions of their local community. Prof. Dawkins will understand how all this is acceptable as long as this behavior is calibrated and in the context of that which has been expressed so far.

It’s what I myself do. I often resort to prayer in the way I was taught and doing so has the power to comfort me. Does that make me a fervent believer?

No, absolutely not.

Johannes Moreelse, Democritus, 1630, Centraal Museum in Utrecht.

Lovin’times (solo piano version)

https://www.youtube.com/watch?v=pJrENAbgFEM

4.3. VARIOUS SCALES OF NATURE, A GOD PERHAPS?

I believe it’s necessary to remain flexible and understand that different levels of interpretation overlap each other in the manifestation of Nature.

Let me try to explain the point further.
There are different levels of investigation into Nature and although they seem discordant, in reality they contribute to forming a complete picture of the analysis.
We could try to explain the Universe through atomic, molecular points of view and we could also define laws suited to explaining the phenomena of interactions. We could also analyze the Universe on larger scales, where relativity comes into play. We could also ask ourselves what an observer is and how their observation, their awareness, can change reality.
Yet, if we ask ourselves this last question from a "micro" point of view, we would deduce that there is no observer, that in reality there is no individual. In fact, matter on those scales is totally inert. It's “an object”. A carbon atom is a carbon atom. Inert within any system. The same can be said for any other chemical element. We are made up of these inert elements.
So, how can something inanimate, albeit in large quantitative aggregations, produce something that is able to recognize itself and rationalize the Universe and life? Despite consisting of inert elements on a very small scale, on a higher scale an organizational complexity emerges which we call life. Therefore, we’re individuals, we’re people as well as being simple objects at the same time. That’s also what we are if the field of investigation is so micro that we analyze the individual atomic interactions that we consist of. Equally, on a larger scale, we’re capable of thinking and feeling, and the fact that we are simply "inanimate objects"... does not make our feelings and our existence any less true. I’ll have to come back to this important point relating to consciousness and will do so if this publication is well received. Since this concept is intimately connected to the analysis of

what may be the consciousness emerging from artificial systems. However, now is not the right time to investigate this point further, so let me apologize for digressing.

Let’s come back to the analysis of what we might call "The measurement scale", i.e. the perspective with which phenomena are examined.

It produces very different results for the same data set. We are simple molecules and inert atoms, but at the same time, on a higher scale, we are also "living beings". That’s how Nature works, ambiguous and mocking. On various levels.

We should also ask ourselves whether, on incredibly large scales, what we call inert matter is arranged in such a complex way as to be… Living.

I would like to draw attention the contents of an article I read a few years ago in Scientific American concerning the computational properties of matter. Inert matter, as such, would seem to possess a very low, albeit not inexistent, capacity for computation, since it is physically able to respond to an external stimulus and "remember" that same stimulus in some way. Today, we know that ordinary matter and energy represent only about 5% of the total mass of the Universe. The rest is thought to be dark matter and dark energy. About 68% of the Universe is thought to consist of dark energy. Dark energy is thought to be everywhere and, in general, is apparently connected to the properties of space like a field property. It’s estimated that it accounts for about 7 mg of the whole mass of the Earth... yet it is the most prevalent part... of the Universe.

All this makes us reflect on the vastness of the immense sidereal spaces and thereby consider how its dimensions are such as to make even characteristics that locally seem so meagre... enormous (at an aggregate level).

So, we know that ordinary matter has a very low capacity for computation, although not inexistent, locally, on our scales. However, what computing power could it have if we consider the spaces of a cluster of galaxies, such as the Virgo super cluster, which is just one of the many super clusters in the Universe? How could a single cell of our brain ever "conceive" the size, complexity and architecture of the brain itself? Then, with regard to thinking matter, faced with the contrasting opinion that it isn't "living", we should consider **that perhaps it's just a question of scales**.

Let me repeat. On a very low scale, I myself am nothing but a cluster of… non-living atoms. Quite similar to those present in ordinary matter. I, too, am made of ordinary matter. It's only the way the matter is organized generates life. My life. Therefore, inanimate masses that generate life can be called "living" thanks to their patterns, their geometric location.

I believe that it cannot be excluded that all this Universal mass might have the capacity to think. Huge. Inconceivable. Not quantifiable... I believe that, for us, any form of contact would be practically impossible, like the chances of contact that a single cell can have compared to the Entire Brain.

It's true that there is a limited speed for the transmission of information from one place to another. That limit is represented by the speed of light, therefore a galactic thinking "organ", given the sidereal distances, would have such long reaction times as to allow our complete extinction as a race, before any elementary formulation of thought. However, if it's true that all existing particles (even those that are too far from us to be seen) derive from that primordial soup of energy that followed the Big Bang and, if it is indeed true that they're all (as such) linked by a common quantum entanglement, they really could represent... a veritable Indra Network. ("Rete di Indra" – a quote from "Il Vangelo secondo la scienza" by Piergiorgio Odifreddi).

4.4. COMMON STRUCTURES IN NATURE

I'd like to shift my attention now to the incredible perfection of the fundamental forces of Nature and to the fact that they are so exact that a simple deviation would make our presence in the Universe impossible. This recalls the dictates of the Strong-type anthropic principle mentioned in the first part of this work. However, I don't want to dwell on that, but instead would like to continue the discussion on the composition of the laws and forces of Nature and their interaction. Once again, relying purely on my imagination and all the intuition of which my intellect is capable, I must confess that I believe that Nature has used the tools it has available to create similar structures throughout the Universe by drawing on what I have come to define a veritable "library of objects".

It's as if Nature had decided to create the scenario in which we live, from the smallest to the largest scales using the same structures. The coast of a continent will be structurally identical to that of a puddle.

However, this is not limited to the aspects of local geometry of the universe; it involves the conformation of the planets, solar systems and/or galaxies.

I think I sense a deeper recurrence, which extends beyond matter and which also includes concepts, abstract contents and intangible constructs.

It's as if Nature had decided to use a construction set or library not just for objects, but also for ideas themselves, i.e. complex organizations that emerge freely in Nature: the structures of thinking.

I believe it's undeniable that some concepts can be recognized as "evolutionary". The Arch, for example, developed by human cultures separated from each other for thousands of years, as well as the wheel or the use of fire.

Is it possible for certain concepts, certain intellectual constructs, like complex material objects born spontaneously by chance, to emerge freely and be said to be evolutionary?

Is it possible to believe that a community consisting of various media (including human) can represent a substrate complex enough to allow the emergence of universal abstract concepts?

If what was stated in the first part of this work is true, we're facing a reality that isn't just consistent, but also probably homogeneous. Completely homogeneous. Therefore, the mathematical laws that govern our local portion of the Universe would also be valid elsewhere and would ultimately be the same everywhere.

I believe it's plausible to deduce from this consideration that any mathematics conceived even outside the logic of current human civilization must necessarily converge, at a conceptual level, towards ours. Mathematics would therefore be a genuinely universal language, the only appropriate one in which to describe the Universe.

I'm left wondering whether this consideration can also be generalized in terms of a series of intellectual constructs such as feelings, emotions and interactions.

Since we don't have the ability to travel through the Universe instantly to ascertain whether such an assumption might be correct, I believe that in order to investigate this point it would be appropriate and consistent to use the examples found in nature in the environment we inhabit. Making do and counting on the fact that Nature uses similar structures throughout the Universe (a library of objects).

If we accept this area of investigation, then different perspectives open up.

We've seen that even very different animal species, with completely different evolutionary paths, end up expressing very similar mental constructs.

Just think of certain bird species. The Kea parrot or the grey heron in particular. As a species, their evolutionary path was different compared to primates; yet, in some cases, they demonstrate surprising abilities not only on an intellectual level, worthy of the higher primates, but they also demonstrate an evolution of the emotional structure that is surprisingly similar to ours.

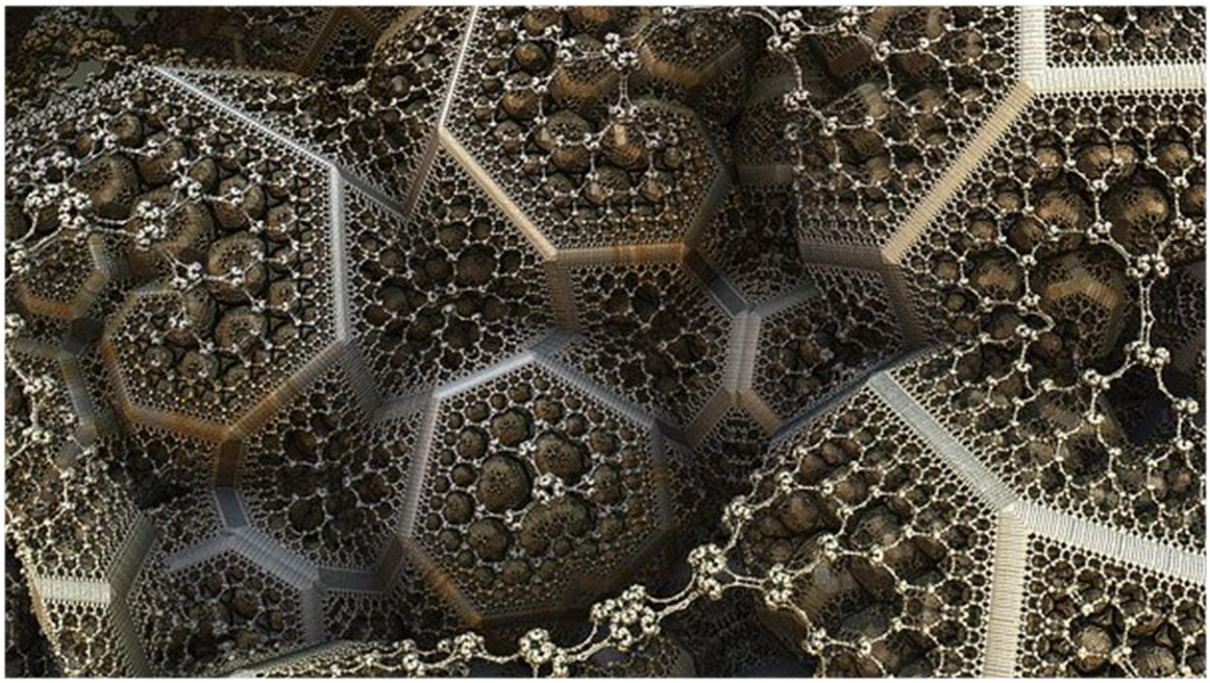
In addition to being very sociable and interactive, the Kea parrot even shows a sort of rudimentary pattern of gratitude. It's able to understand an act of courtesy and return the favor!

Perhaps it's reasonable to expect that certain mental structures can evolve spontaneously as the complexity of the media on which they are found increases. That way, we could have convergent systems or mental patterns in different living races.

Today, we don't actually know whether or not other evolved and intelligent forms of life exist in the Universe. After all, we have no proof and several scientists have expressed their opinions on the issue, including Fermi, who formulated the famous "Paradox".

Without any proven and certain proof, however probable life may be in the cosmos, much to my regret I have to limit myself to the consideration that this is all merely theoretical. I therefore need to behave as if other forms of life don't exist.

Whatever the case, even if in purely theoretical terms, I consider it a stimulating topic of discussion and therefore worthy of mention. That's why I deliberately touched upon this point.



Like an Angel (Original Extended Edit)

https://www.youtube.com/watch?v=wHRUhTADqak

4.5. LIFE: PERSISTENT AND STUBBORN

I'd now like to devote a little space to an issue that I think is both interesting and significant. The consideration of Life.

The miracle of life that surrounds us.
To provide an easy explanation of my point of view, I'd like to briefly relate a fact that I experienced first-hand.

As I wrote earlier, my first working experience was at a financial institution.

During that experience, I felt a natural need to bond with colleagues and, welcomed by them, I started spending time with a small group during lunch breaks. There were various parameters, primarily age, in which I differed from them, indeed I was most definitely quite different. Nevertheless, the environment was jovial and a human being needs interaction and I was therefore grateful when I began to frequent them and have lunch with them.

The office was located in the historic center of a large city in Northern Italy, not too far from my home town.
Being located in that area, it was quite common for us to go out for a breath of fresh air and a stroll after lunch. During one of our outings, walking around the beautiful historic center, we walked down a side street, a small alley. As we walked through and approaching the end of the street, I noticed something incredible...

In a corner of the wall that bordered the alley there was probably what was an accumulation of dirt and dust. It really was a very small patch of earth on the stone pavement in the center. A truly insignificant area... Well, a little tree had thrived, beset with difficulties, on that insignificant area. From the twisting manner in which it had grown, clinging spasmodically to the wall, it was evident that it had grown despite a myriad of difficulties. Yet, there it was, putting on a show of

incredible and moving beauty. An extraordinary example of how living Nature, in its absolute simplicity, can be extraordinarily stubborn and persistent.
While I was still intent on poetically rationalizing it all, my colleagues' voices abruptly woke my conscience from the ecstatic stupor I was experiencing.

Indeed, they began making puerile and whining comments about the fact that the street had not been "cleaned" and that the miserable, twisted tree was a... disgrace...
They added that it should be cut down as soon as possible.

I handed my notice in after a few weeks. Had I stayed a few more months, I probably would have

committed suicide.

4.6. A RARE AND PRECIOUS LIFE

Even from just what's written above, I believe it's easy to understand my position on this issue. Life is a miracle. It's persistent, it's stubborn. Life always endeavors, regardless of the circumstances. It tries every strategy in order to persist.
I just can't understand how anyone can be blind to all this. I can't understand how anyone can remain indifferent to this spasmodic, moving effort...

To the contrary, I think it deserves respect, even awe.

As a child, on my fifth birthday, after returning from a trip abroad my father gave me a quartz watch. One of the first ones. It was a Casio. It was futuristic for those times. It was the early '70s. The enigmatic black screen only became scarlet red and showed the time when a button was pressed. It was the golden age of science fiction and we children spent the afternoons devouring the television series of the time, only to meet up the next day to comment what we saw and try to stage those fantastic events.

Thanks to that watch, which was the envy of everyone, I always had a leading role in our fictional dramas. It seemed to all intents and purposes to come from an alien civilization. I still remember the comments of the friends I used to play with. They used to say it cost an arm and a leg. I was proud of it.

Any modern-day quartz watch boasts much higher accuracy than any high-end or ultra-high-end mechanical watch. So, ultimately, if we agree that the purpose of a watch is to keep time correctly, we should deduce that the quality of a quartz watch is undoubtedly the very best. However, how much is a watch like that worth today? Very little. In some cases, they're even given away when you buy other, more expensive goods.

They’re worth next to nothing, yet they’re complex. Much more complex than a wooden door or an aluminum frame which, nevertheless, have much higher market values. Quartz watches, in general, are still more complex than most consumer goods on the market today. Yet, their value is almost nothing, despite their complexity and build quality. This is a point that I’ve always struggled to understand and I remember asking my father over and over again, throughout the following years, why quartz watches had lost their value.
I understood the economic explanation, but I kept wondering how an object’s build quality and complexity could be totally ignored in its evaluation. "How can something so complex, no matter how many there are, be worth so little?" – That’s what I wondered.

Nowadays, we know that the reason for the loss of value of certain objects is undoubtedly a matter of economies of scale, which over the years have ended up decreasing the cost of production, but also the "availability" of the object on the market in terms of numbers, since availability triggers the reaction of lowering its price. Objects like this are present in such large quantities on the market that they are now inflated. On the contrary, that’s the reason car manufacturers decide to limit the number of models in production and number each frame for the few exclusive owners. To raise the value.

So, let's get back to our discussion and to our initial point.

Thanks to its intrinsic misfortune, Living Nature met Mankind on its path and made itself so abundantly available that, in my opinion, it was perceived as overabundant and taken for granted. Hence, ultimately not particularly valuable.

Why get upset if all the tall trees in your city are cut down? There are so many of them that cutting down a few is an irrelevance. That’s what some insensitive fools come out with. They consider irrelevant whether or not there is uncontrolled consumption of the soil or

whether trees are cut down in the countryside or land taken from Living Nature.

We’re used to placing value on things that are rare. We attribute importance to things based on how rarely they are available for our use.

I think we should stop and turn our attention to the Cosmos and its sidereal distances, for a moment. Life is abundant here, for now, and it’s available. However, that’s not the case outside the confines of spaceship Earth. For now, there’s no trace of it in the solar system. Perhaps the exploration of Mars will reveal the presence of life in the planet's remote past. Right now, though, there doesn’t seem to be any. Given the extreme conditions of pressure, composition of the atmosphere and magnetic field, it might possibly be found under the surface, in microbial form...
So, let's get back to the initial point. Life is rare. It’s extremely rare. So rare that it seems like a miracle. And we have been blessed to find ourselves immersed in an oasis of such local abundance. Its general scarcity in the cosmos should mean that we attribute the highest possible value to it, in all its forms.

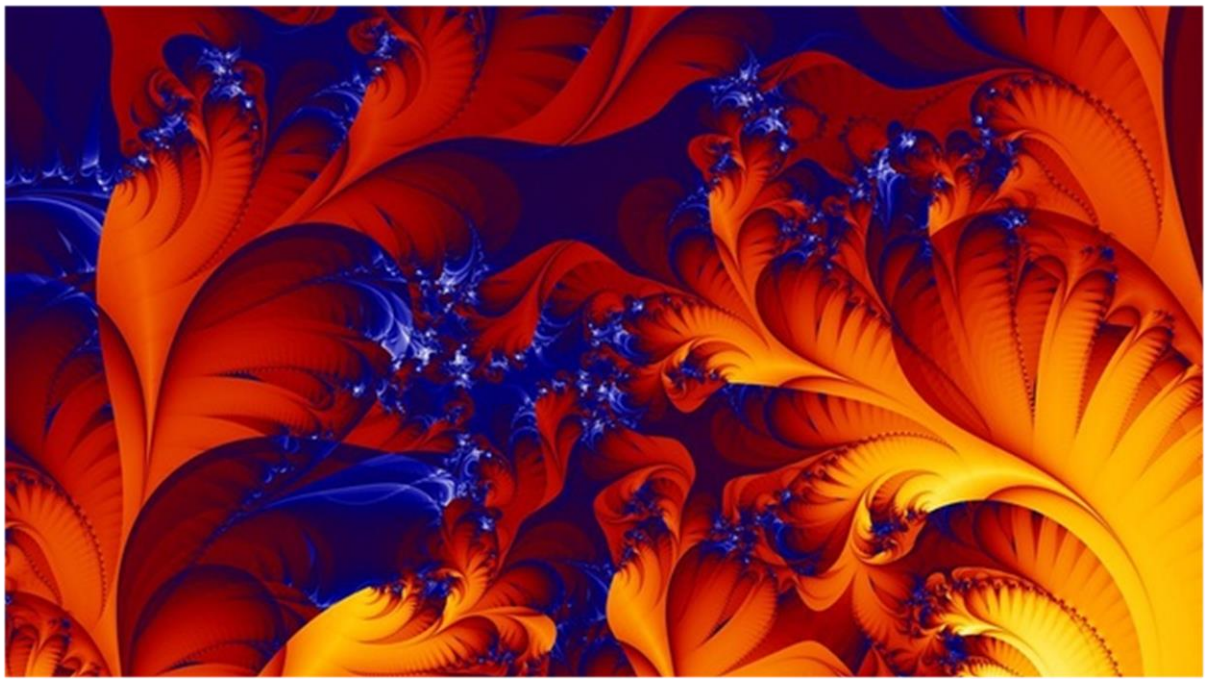
Life, from what we know of it, is also many times more complex than any human artefact ever produced.

The outcome:

Life deserves respect. I don’t expect everyone to feel the same ecstatic joy that I feel while watching the incredible effort of a small flower growing between the folds in the concrete of a road, but I think it’s both necessary and desirable to at least achieve greater general awareness of how rare and complex life is. So that decisions in everyday life might be made with renewed cause. So that decisions at all levels might also take this into account, understanding that we’re inside the flow of life itself and we’re a part of it.

Without Living Nature, we would be condemned to live a very poor life.

Very poor.



Masterpiece

https://www.youtube.com/watch?v=TF8zL9UqFAY

CONCLUSIONS

My dear ladies and gentlemen, we have reached the end of the line. Our journey is over. I hope you found it interesting and that, like me, you can now face the future with renewed hope.

In addition, of course, to hoping that you enjoyed reading my work and that it gave you as much pleasure to read it as I took from writing it.

I would like to shake your hands, but that's obviously not possible. However, since this work is something that I produced, it might have the power to bring my spirit closer to yours because I put my heart and soul into it, my entire life and all of my passion. And even if, one day, I will no longer exist, it will (perhaps) live on and, with it, a part of my EGO will also survive.

Through it, you'll be able to talk to me in a certain sense and find (as I hope) important food for thought for yourself and for how you choose to live your lives.

BRIEF FINAL CONSIDERATIONS ON THE NATURE OF THE WORK

I've often wondered what kind of work I would end up producing when I started writing. Mathematical, physical, psychological or philosophical? Perhaps it cannot be fully attributed to any of these areas.
I'd be tempted to baptize this speculative area as a new avenue of investigation which I would like to call **Contemporary Synthesis**, since it tends to transversely embrace different fields of knowledge. We come from an era in which the verticalization of knowledge was and still is, in certain essential aspects, the only relevant key variable. However, I believe that the advent of the new digital era and the new organization of the so-called Large Companies can and should allow

the increasing promotion of a type of knowledge that spreads across a number of interpretative fields. That would allow a clear view of certain dynamics and provide the ability to glimpse a path of dominant choices that would normally be prevented by the extreme and limiting ultra-verticalization of knowledge.

I also wondered how I might judge this work from a reader's point of view. I'd undoubtedly find it interesting, but that's obvious since it touches upon all the topics that are dear to me. Therefore, in this case, my personal judgment is irrelevant. Nevertheless, the fact remains that I hope you might find it interesting and that it might somehow enrich you.
One thing is beyond doubt, I put my heart and soul into it. Even though certain topics, due to their inherent fundamental importance, should be treated in a formal and aseptic manner, I preferred to give myself a free rein to create a work that would be able to stimulate all of the senses. That would be able to project my being and, regardless of the topics covered, would be able to create a robust interaction between the Intellect and the spirit. Thanks to the conceptual, visual and musical contents. This work is a non-profit exercise; its only purpose is the free expression of the content that I hold most dear. It's an act of freedom and represents the expression and the will to communicate.

Because that's how I personally conceive life around me. Since I was a child, and even today, a musical composition reverberates in my mind in the form of colors, images and sometimes flavors.

It's therefore natural, from my point of view, for me to have attempted to communicate important topics in such a way, through a composition whose form is probably unprecedented. Is it austere? Perhaps, I don't really care.

From my point of view, communication at all levels should be like that, able to involve the intellect and the senses.

Because otherwise the risk is to use only a fraction of our EGO and end up watching a sunset, without being able to perceive and understand the immense beauty that we have the privilege of having there, in front of our very eyes…

FOR A BETTER LIFE

This short work is born of the need and desire to express what I profoundly believe in terms of concepts and abstractions that cannot be conveyed in everyday life. In addition, of course, there's also the will to stubbornly survive time and the indifferent and inexorable dissolution that faces us all. There's also the hope that understanding these considerations of mine might lead you to a better life.

The first chapter, irrespective of the theories expressed, is my very own personal and crucial battle cry for the understanding of a general underlying logic, a meaning that connects and embraces everything, which I've always desperately sought. I hope it can be understood for what it really is. A message of love and hope. The only truly relevant answers in the face of a life that is nothing compared to the abyss of infinity.

The second chapter, on the other hand, has a more ecumenical purpose and I'm certain that once understood and accepted (perhaps by the new generations) it can potentially bring important benefits to understanding the behavioral dynamics of individuals, raising the standards of communication of individuals.

The third chapter touches upon topics that are generally dear to me and its function is to range far and wide, looking for answers to problems and important topics, dictated by intuition and the imagination. In it, I also generally touch upon some points that also relate to what I consider to be morally right. I think that came across quite clearly.

The fourth chapter deals with the topic of self-understanding within the flow of life and Nature and I hope that its contents may serve to awaken some consciences.

MY GOODBYES

Dear all, you have to understand, once and for all, that most outpourings have emotional origins and that the defense of one's beliefs is often dictated by non-rational needs. Keep that in mind the next time you find yourself feeling the need to contradict the person you're communicating with. Ask yourself, once and for all, with extreme honesty and introspection:

... what's the subject of the dispute?

Lastly, I'd like to end with one last important, indeed very important, crucial thought:

"It doesn't matter how rich you are or how many experiences you can say you've had throughout your life... you're still poor... unless you've gone to Baiso by bike".

Samuel

Pedriellí

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https://www.youtube.com/watch?v=FLEUYHzXbu4

September

https://www.youtube.com/watch?v=iC1CLRvbMX0

Mornings

https://www.youtube.com/watch?v=GqzK7HIlxF8

Menuet from Suite in B Minor by J.S. Bach (LIVE)

https://www.youtube.com/watch?v=Vzoo7oKrl_M

I like Chopin (solo piano version)

https://www.youtube.com/watch?v=Yzx4I9NvfYk

Bach on Synthesizer

https://www.youtube.com/watch?v=vjw8iaJ8XgU

I Like Chopin (Instrumental Cover)

https://www.youtube.com/watch?v=BxRCl4F7410

Like An Angel

https://www.youtube.com/watch?v=mzofXW3THM4

Love in your Eyes (Instrumental)

https://www.youtube.com/watch?v=B1HKrZCRF-Y

Lovin'times (solo piano version)

https://www.youtube.com/watch?v=pJrENAbgFEM

Like an Angel (Original Extended Edit)

https://www.youtube.com/watch?v=wHRUhTADqak

Masterpiece

https://www.youtube.com/watch?v=TF8zL9UqFAY

The following musical list contains hits, internal and external covers and musical performances by Maestro Pierluigi Giombini.