To my dear Brother

and his kind Companion.

Finite is an invention,

Infinite is discovery.

(K.E)

Basis of Infinitylogy

Why and how to study Infinity

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Basis of Infinitylogy: Why and How to Study Infinity

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Foreword:

Infinity had been seen for a long time as pure abstraction. Philosophy and mathematics treated it like a mere theoretical concept to express anything unlimited or countless. Its restriction in this imaginary field rendered it negligible. That's why, despite its presence in the intellectual evolution of humanity, *infinity* had never been viewed as an indisputable fact and less as a possible workable reality. Even nowadays, we still see it more as a speculative indication than as a material representation.

By introducing *Infinitylogy* as a new discipline, we attempt to break through the artificial misconception around it and disclose the huge aptitude of *Infinity* to become an active field of discovery, invention, and purposeful intervention; i.e. a widespread framework for combining philosophical conceptions, scientific theories, and technological implements that will all lead to a hypothetical prosperous outcome.

We developed some overviews of Infinitylogy as a new subject in the first volume.[1] However, in this second

[1] ERFANI, Korosh; Infinitylogy (Foundations of a new discipline), ILCP Publishing House, 2021, 148 pages.

book, we shall attempt to justify Infinity's reality. We will also provide a few reasons to demonstrate that infinity is not a property of matter, but rather that this latter is an attribute of infinitude. By doing so, we could get this individual off his head and onto his feet. This indicates that infinity does not need to demonstrate its materiality given a corrected context, but is verified by infinitude.

Understanding the physical presence of infiniteness in everything would correct a millennia-old faulty worldview that has never stopped underestimating the greatness of infinity. For millions of years, we mistakenly assumed infinity was only a peripheral abstraction of the universe, while it was at the very heart of its materialization. We forgot that matter does not have any established self-sufficient objective substance, but rather reveals itself through the infiniteness of its underlying interactions. Time to put everything in its place! We should no longer see *infinitude* as an outcome of matter but as one of the derivatives of infiniteness. If we correct this historical flaw, our civilization will have an excellent getaway available for saving itself and an outstanding

opportunity to elevate its existential rank in the universe.

However, such a massive assertion is far from being able to be proven. This difficulty represents a complicated path toward the formation of Infinitylogy as a discipline. This book is only a minuscule step in this long journey. Infinitylogy is defined as a methodical framework for functioning with infinity, also requires a tremendous participatory and institutionalized effort across time.

The writer invites everyone to see this suggestion, not as an intellectual adventure, but as a necessary rectification of a risky pathway that can end up in our extinction from the surface of the earth. By knowing that there is no limiting reality in the universe, we would look for unlimited territories of action waiting for us with endless blissful outcomes. The philosophical theory of Infinitism claims that, in contrast to the conventional exploration of nature, which has become linked with depletion, the usage of matter's infinitude is a nature-friendly method that will ensure our existence and prosperity. This is a win-win situation.

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Introduction:

While we struggle for a little, nature provides us with a lot. So, why is there such a chasm? Is it because we don't fully understand nature and its ability, which, according to our theory, is limitless?

When we comprehend that the material realm's capacity is limitless, our species' future alters profoundly and eternally. This is what Infinitism and Infinitylogy, working together, are to achieve. They claim that in order to gain a limitless number of resources, we must go deep into the micro and macrostructures of matter and attempt to modify particular elements of the causal chains that generate it. This idea of getting infinite resources from nature goes forthrightly against almost everything we had hitherto learned to believe in, but we should dare give it a shot. The writer firstly tried to open this way in the frame of a philosophical theory called *Infinitism*.[2] This

[2] The philosophical theory of *Infinitism* had been so far presented by the writer in the following books:
Infinitism: How to make Infinity your philosophy for life, ILCP Publishing House, 2021, 375 pages.
Infinitism: The Philosophical theory of change, (book in Persian), ILCP Publishing House, 2020, 1000 pages. (A translation of this book is planned for 2022-2023). To get more information, visit www.infnitism.info)

latter puts forward a simple assertion: *Everything is infinite or is not*; If this is true, why not the material resources? They would be *infinite* as well.

Infinity is unlimited and never-ending, and as such, it is inherently intangible; but, we may follow its path of action by remembering that it operates throughout all matter; if we do, we will discover numerous opportunities to intervene in what and where the infinitude is acting.

Up to now, we have been told that to change the world, we should change ourselves, but it might be time to rephrase this: to change yourself, change the world. As a result, we must retrain how to cope with the material world to rewire our brain in this aspect. In the context of dialectical interaction between subject and object, we may see how the infinite notion could help move the delayed progress of the world and, as a result, fundamentally freshen our worldview. An infinity-based approach will change our attitude towards the universe and make us more creative,

inventive, and entrepreneurial. Accordingly, the world will be reorganized with unprecedented momentum, causing massive beneficial revisions in the course of our civilization.

Are we prepared to participate in this game? Are we prepared, as religious traditions suggest, to enter the kingdom of infinity? Or, as futurists argue, are we ready to imagine an eternity that is delivered objectively here on Earth by a methodical alignment of philosophy, science, and technology rather than in phantasmagorical heaven?

Here we are. This is what Infinitism as an existential adjustment theory recommends. Yes, we could change the causal pathways of any micro and macrostructure of matter and obtain long-term outcomes.

But, how can we project to get infinite resources from the universe?

For thousands of years, we have been dealing with the material realm in a way that conveyed all the perceptional gullibility we carried when we habited on trees and in caves. Today's modern sciences and new technologies inherited the erroneous ideas our

ancestors fabricated regarding their surrounding environment. It's true that all along with history, we polished our aboriginal understanding up and added voluminous precision and technicality; nonetheless, some residual fundamentals still stayed there. We worked to improve sciences and technologies considerably; even so, we left philosophy on its own. We neglected it while this latter was the underpinning setting of sciences and technologies.

One of the developing notions that shaped our evolution and is, still at these days, operating in all aspects of our economic, cultural, social, political, and scientific activities is this steady faith that "*the natural resources are limited and ending*"[3]. For centuries, we acted in line with this 'certainty' and thereby made wars, crimes, class exploitation, oppression, dictatorship, and many other atrocities. The absolute majority of the global population still think at this precise moment that the above assertion is not but true and quite obvious, that "*the natural resources are limited and ending"*.

However, it is not.

[3] We call them also "non-renewable sources".

This might be time for us to use our comprehensive collective knowledge to check this statement out and see if the natural resources are indeed so restricted or not. To verify this belief, we should first know where this faith emanates from. Why and when did our ancestors start to think that natural resources are limited and forcibly get exhausted one day?

A brief historical review

According to history, humans were originally hunter-gatherers. We hunted herds of bison and deer until we couldn't get enough of them, or any at all, due to depletion or emigration. We only discovered their scarcity or absence after we arrived; no forewarning, no mandate. Also, we harvested nuts and fruits until they were no longer available because of exhaustion or a change in season. Again, there is no prediction and no provision.

So the first though lesson we learned from the world is that "everything has an end." This might be the first spectacular sighting in human history in thousands of years. And this unpleasant discovery shook us so much that the concept of finitude became established in the most fundamental portion of our collective unconscious

memory; so profound that it is still there, as present and active as it was thousands of years ago. Scarcity is humanity's most persistent historical forewarning.

Based on this first humbling experience learned harshly in the school of nature, humankind was constantly desperately hunting for additional living resources, knowing that everything it found will be gone one day. Every resource appeared to the primitive people to be perishable and insufficient.

Even after discovering resources that could be generated and reproduced through farming and cattle, the man had no idea how to deal with other extreme natural rates such as flood, earthquake, volcano, landslide, wildfire, drought, storm, etc. All of them reminded them of their dreadful common denominator: abruptly "destroying" their crops, stocks, or livestock. ‘Shortage’ became the most truthful point of primitive people’s life.[4]

Endings have always been connected with hunger, famine, sickness, and death. That basic idea of finitude has become stronger in our collective imagination.

[4] What is interesting is the prehistoric people felt this fear of scarcity even more after the agricultural revolution than when they acted as foragers.

Later, men became aware of the finite nature of resources for various qualities such as water, fire, wood, salt, and so on. This notion became so strong in the unconscious minds of ancient people that they arranged their entire civilization around it.

The management of food stockpiles was so important that it became a vector towards a segregation system. Society was divided between those in charge of distributing the nutrients and those who relied on them. The oldest social class structure evolved as the standard of all subsequent attempts at society-building and social engineering, with some more sophisticated hierarchical duties and positions to date.

What we term human civilization includes all we defined as social, economic, political, and cultural institutions within a class structure based on a worldview of finitude. Scarcity became a defining feature of social order. Since then, we have only slightly shaken this arrangement; and what is deceptive is that we have not touched, in the least, the old primitive but the highly persuasive statement of the early human civilization according to which “everything is going to end”.

Was this assertion based on material reality, or just on a collective consensus on historical primeval anxiety that was too palpable to be refuted? We don't know for sure, but we can claim that the assertion's intactness, as well as its steadfast obviousness, in our historical memory, may be accounted for as philosophical lethargy and a lack of intellectual courage.

We invented the word "scarcity", but we never tried to figure out what it meant. Throughout millennia, we showed our incredible ability to do and undo various belief systems, religions, schools of thought, philosophies, and theories; however, we never attempted to reverse this primitive impression of scarcity that was affecting all of our tangible and immaterial historical existence.

And why haven't we eradicated the concept of 'scarcity' from our fundamental worldviews? Was it because it was buried in a deep and hidden dark corner of our collective unconscious mind? Was it, and is it still, a solidly entrenched collective stake no one would dare to dispute on its own? Is it because the claim in question was so 'clear' that casting doubt on it would

have been insane? Was there a lack of creativity, followed by some arbitrary implicit will?

Or, as a sociologist could put it, was it because the upper class was benefiting so much from its current status that it was never a prudent endeavor to engage in such a 'foolish review,' capable of upsetting their profitable social order? Was this claim the result of a class consciousness dominating a popular unconsciousness? Was it for this reason that the Church burned alive in the streets of Rome Giordano Bruno, who proposed incorporating infinity into our understanding of the universe?

I believe it would be a combination of all the aforementioned reasons and motives. This combination made us want to remain a diminutive species, despite all the possible civilizational improvements. We may have had a different historical fate if we had broken free from the shackles of scarcity and finitude. To do this, we should have chosen a vision based on inherent material wealth and global infinity. It should be due to an ill-fated union of social deception and intellectual indolence that we never properly contested the extremely detrimental notion of scarcity.

A quick question:

Is it now, in the third decade of the twenty-first century that the moment has come to do what we have been putting off for centuries? Could and should we finally venture to question the certainty of material resource scarcity?

While the hint may appear intriguing and the taunt encouraging, we must address the fundamental question that arises almost immediately when discussing such a daring undertaking: Are the potential resources of matter actually unlimited? Is there a genuine potential that we will find the endless assets that we require in nature? Is scarcity, in reality, a sham idea created by our primal worry to fade away? Is finitude a dreadful residue from the ancient era that we should ultimately free ourselves of?

Finding convenient answers to these questions can be the most adventurous challenge for any intellectual on a planet that has been so badly mistreated by its inhabitants; especially when we know that these latter have been regrettably influenced by a terrible affirmation on finitude and scarcity of resources.

To effectively test this contradictory hypothesis based on infinite resources, the technique we propose should include three components:

1. A philosophical explication that considers infinity to be a certain pervasive reality in all material forms of existence.

2. A scientific system that experimentally validates the actuality of infinity in the fabric of matter.

3. A collection of technical tools capable of operating or projecting operations on expedient finite parts of infinite causal chains within material occurrences.

The intertwined complementarity between the previous three processes is more crucial than each step individually:

• The philosophical approach is useless unless it provides tangible conceptual foundations for the scientific questions about the explorable presence of infinity inside the fabric of matter.

• Scientific study should be able to demonstrate how technical endeavors may be deployed to turn infinity into a field of operations capable of providing the desired material things.

The task is neither simple nor straightforward. It is, in some ways, the question of the most fundamental intellectual and material revolution that we have had to organize intentionally and purposefully thus far. The idea is to shift our perspective and get to a point where we can imagine a new world in which the one we live in now will appear ridiculously primitive.

The significance of the viewpoint inspires the weightiness of the demarche to follow. This procedure, which will require time, effort, and resources, causes a rigorous unified project for its phases. If such is the case, we will demonstrate to humanity that a large section of its history, filled with pain, sting, deprivation, hostility, murdering, sacrifice, and repulsion, was certainly worthless. Then humanity will realize that there was no inevitability to exploit, deceive, kill, or destroy countries and continents to expropriate resources, nor to bring the earth to the brink of ecological and climatic collapse; it will be a historic wake-up call and, most likely, universal remorse that will lead us to a new global "historicity."[5]

[5] *Historicity* is, according to the French sociologist *Alain Touraine*, "the ability of society to act on itself, and the quality of history as a human activity." We

At present, the question is to know how to proceed with such a noble intention.

Conciliating with an unkempt Concept

Infinity had been treated for centuries as well in philosophy as in mathematics. There is also a lot of literature on the subject; the unknown is whether we can use this notion to put an end to the enigmatic concept of "scarcity", which has persisted from antiquity to the current day. To accomplish so, we must construct a source of knowledge that will address infinite in both theoretical and practical contexts.

Infinitylogy, as we name it, will be an interdisciplinary study of infinity. It dynamically combines philosophy, science, and technology, possibly encompassing all the pertinent knowledge and culture that human civilization has put together up to this point. This massive endeavor needs a long-term participatory and cooperative effort. A person may commence and

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can also describe it as the capacity of the society to intervene and to determine its own historic fate. One of the main composing elements of this capacity is philosophy as the tool of providing meaning to the historical pathway of a given society or of the whole humanity. *Infinitism* had been created and suggested as a philosophical module of the ability it's a question about in the above definition.

develop the fundamentals of this discipline to the greatest extent feasible, but he or she cannot get that far alone. Such a project, like a multidisciplinary academic area, will require decades of coordinated, funded, and institutionalized hard labor to become a well-founded field of human knowledge.

As previously stated, the goal of Infinitylogy is to provide a theoretical framework that includes:

- A philosophical perspective on infinity within existence to offer science with an adequate theoretical base for a practical approach to infiniteness within matter.
- Scientific designs demonstrate the reality of infinity in the structure of matter and provide a methodology for finding and altering it appropriately, intentionally, and effectively.
- Technological achievements that enable the aforesaid scientific technique to apply to concrete material phenomena in order to get the required stuff as a result.

In order to construct its theoretical structure, Infinitylogy must first understand the inherited grounds of the idea of infinite. We should frame this

concept in its historical context so that fresh, unexplored and unknown aspects and tracks might emerge.

In this book –and as an example– we just describe the phases of this type of study that may and should be carried out provided the funds, manpower and support are available. The presentation of this approach provides some suggestions to individuals who may be interested in this topic.

The following are the most general outlines of a study proposal for a historical contextualization of the notion of Infinity:

1. We will gain a first flexible and effective idea of what has already been communicated regarding the notion of infinity by doing a lexicometric analysis on a selected corpus of literature connected to this topic.
2. Using the lexicometric review results, we then execute a content analysis to discover the rhetorical interconnections and conceptual links between the principal thoughts, keywords, and notions of the texts under consideration.

3. We create a complete categorization and classification of data concerning the idea of infinity based on the aforementioned content analysis. The goal is to identify all the sectors in which the infinitude has been not only addressed but also dealt with in terms of action.
4. Finally, we shall reveal how the preliminary core of Infinitylogy can already be created by an analytic review of philosophical and scientific literature. In this way, the micro and macro domains where infinity is intentionally acting will be recognized, and we will become familiar with its mode of operation, as described in philosophical and scientific collected works, as well as its strengths and weaknesses.

The preceding contextual and historical examination may also show what we already know about infinity as well as what we are severely missing. To be effectively completed, such a large scholarship initiative needs professional employees, specially developed software, time, and financial support. As an individual, I couldn't imagine going through such a massive undertaking at the time. That is why we continue our approach as far

as we can while maintaining our desire to have proposed such a vital investigation for developing this new field that is Infinitylogy.

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What we'll be presenting in the following chapters of this book are some rough thoughts on how the infinitude might be found inside various structures of matter. Following the publication of the first book on Infinitylogy, which contained its conceptual and abstract foundations, we will go a little closer over materiality and infinity and will attempt to explain how we could detect the first trails of where infinitude resides and offers its immense workable potentials.

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Chapter I

Infinitylogy and its Approach to Matter

Infinity represents one of the most accurate and realistic depictions of matter's dynamism. It reflects the interconnections that shape the substance of matter when we could see the smaller and smaller levels of its fabric or the larger and larger constellations. Infinitylogy starts with some presuppositions about the way we conceive the action of infinitude in the structure of matter.

Presuppositions:

• Matter is infinite in

- the number of its components,
- the number of interconnections between components,
- the number of ways the components relate to each other.

• Component is nothing but a set of endless interrelating interconnections.

• Matter is structurally just interminable interconnections; but for the sake of our anthropic sensorial discernment, we consider infinitude as finitude so that we can interact with it. This means we can deal with the infinite via the finite.

• Since the primacy is with interconnections, we break them down into three categories:

- Intra-connections: Relationships between the components that make up an entity;
- Inter-connections: Relationships between similar entities;
- Outer-connections: Relationships between an entity with other entities.

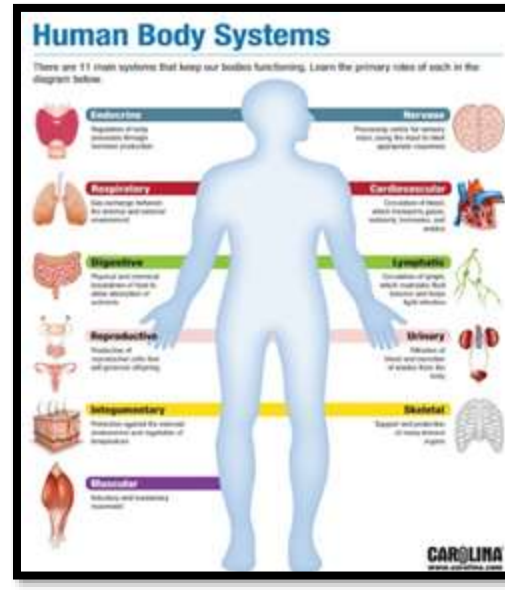
The fabric of matter appears to be a form of networking scheme that encompasses all three types of connections in an unending, concurrent, dialectical, and overwhelming hierarchy. That is why we may refer to any material entity as a *NetEntity*.

Later, we'll go through how Netentity is organized and how it works. To do this, we will apply the concept to

the Standard Model and propose Netentity as the material configuration in these forms and levels:

- *Elements*
- *Molecules*
- *Atoms*
- *Subatomic particles*

According to our idea, the manner in which the components and subcomponents are interrelated would be variable and unlimited. This means that not only are the number of components and the quantity of their interactions infinite, but so are the mechanisms by which these interconnections are formed; i.e., the rules and mechanisms for shaping interactions between particles and sub-particles are infinitely variable within an entity. The plurality of



Example of a body system seen as a Netentity that contains several systems viewed as Netentities. A network of networks.

Source: carolina.com

Accumulations-Alterations occurs in two modalities of 'Regular' and 'Accidental' interrelationships. When we multiply these

- 3 kinds of *Inter/Intra/Outer connections* with
- 2 events of *Accumulation* and *Alteration* and
- 2 modalities of *Regular* and *Accidental,*

we get:

$$3!*2!*2! = 12! \ (479.001.600)$$

And then we should put this number in an infinite frame of all phenomena to get every possible way the components of matter interrelate to each other.

$$12! * \infty$$

This is to suggest that as we traverse through the structuring endless causal chains in the fabric of matter, we should never anticipate a single set of laws, but rather a tremendous diversity of sets of rules at any level. While the apparent stability may indicate certain dynamic regulations, we must not undervalue the inner variation that exists beyond this appearance. As a result, interactions between entities may see changes in the rules and regulations at each echelon, resulting

in new types of operating gears in the expansion of causal chains.

However, the issue that arises is why it is important to notice the diversity of relationships between the components of an event. Let’s explain that.

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Every action has an unlimited number of impacts within a phenomenon, but we normally only pay attention to a handful of them. By ignoring many other outcomes of each action, on the deeper levels, we deliberately accumulate the numerous unknown side effects that would have the potential capacity to trigger some unprecedented changes at a given step. These alterations might also be occasions for action in order to influence the configuration of a phenomenon in the desired direction.

We don't get a complete picture of what's going on in the cosmos if we overlook these opportunities for intervention and change in the structural causal chains of matter. To prevent it, we would rather advocate, in Infinitylogy, paying constant attention to the complexity of reality and considering the infinite

number of ways in which the constituent components of a phenomenon communicate and interact.

Many issues of human life come from this perceptional negligence regarding the subterranean levels of the phenomena and their micro-actions. A tangible example is the tooth cavity[6] that takes a long time to shape, a time during which we are just ignoring the harm that is happening deep in our body.[7]

A similar lack of a view of the chain of events is seen when we think about the impact of our individual or collective behavior in the world. If we consider any human being's action as having infinite effects, with uncountable ensued upshots, we would ponder more seriously upon the consequences of what we are doing:

[6] See the image. Source: clinicaslineadental.com

[7] At the Center for Research and Development of Infinitylogy (CREDI) that the author founded to carry on an organized work on this new discipline, we will work on these assertions by specialists in order to verify them through experiments and scientific studies.

the destruction of the environment, air and water pollution, colonization of other countries, inflicting pain to the oppressed people, generating depression and anxiety, and many other organized wrongdoings.

The formula is simple: the consequences of each action are eternal and far-reaching than we have learned to conceive. We cannot go forward effectively unless we are interested in the intricacies of what we are dealing with; so we must delve far deeper into the edifice of facts and materials to understand how these specifics might guide our future activities.

In the next chapters, we will walk through different layers of matter and attempt to grasp the components and their interrelationships in the universe's fabric. The only question left is this:

Could we find any proof of the infinitude in:

1) the number of components of a phenomenon,
2) the number of the interrelations between components,
3) the number of the ways these interrelations are shaped?

Once again, we have to think about the ontological aspect of infinitude to answer the above questions that stem from the importance of the variety of actions within the matter.

Lecture on infinity

Infinitude should be expressed in a way that makes it as concrete to us as possible because of its classic intellectual implication. Then we need extra explanatory tools to demonstrate the realistic nature of what we term infinity. These instruments may be created by a combination of philosophical and scientific theorems, where we can alternate between theoretical and practical, or between micro and macro, to increase the tangibility of our presentation of infinitude as much as feasible.

As previously stated, the first instrument we devised for this goal is the neologism of *NetEntity*. A combination of Net, to represent the networking nature of the interrelationships between the components of a phenomenon, and Entity, as the subsequent occurrence that arises from the networking of these components—at least on the assumption that it appears to our anthropic perception as a finite.

Netentity is therefore a term that combines structure and process, container and content, finite and infinite. It also symbolizes the process of intercreation as all the interactions that occur between the constituent features of a material occurrence in its entirety.

In prior work,[8] we presented it as the Accumulation-Alteration duo. When the networking in a netentity grows, it creates a new entity that begins to include new networking amongst its components. When these networked pieces reach a particular point, they create a new creature, and the process continues. Let's expand on this idea further.

Some assertions on NetEntity

- *If everything is netentity, then netentity is everything*.
- Every netentity is creating all other ententities.
- All the netentities are participating in creating each and every of themselves.
- No netentity could be created without the influence of all the other netentities and,

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- all the netentities could exist through the active contribution of every single netentity.[9]

This also confirms *the law of conservation of energy* and as the energy is itself a netentity (matter), it means that

- No netentity is never annihilated, but transformed into other netentities.

And we remind the main assertion of this topic: Each netentity is a network of networks, creating, as a whole, an entity that acts itself as a part of a broader network.

Therefore, we summarize all these assertions as follows:

- Every phenomenon
  - is a netentity [or a network alike],
  - contains netentities [or subnetworks],
  - is itself a subnetwork of a bigger netentity.

This triple function of networking process continues indefinitely at both the micro and macro levels for any phenomena. This indicates that the formation of a

[9] This is just another version of what we said in the theory of *Infinitism* as "Universal Solidarity" according to which all the matter in the universe is interconnected.

netentity is a never-ending process involving other netentities. Understanding the configuration of matter and the infinite cosmos is based on the infinity of sub-netentities within a netentity.

So, if we consider the netentity's dynamism to be 'infinite', we may argue that the universe's configuration is the infinity of the interconnected infinite phenomena.

In this view, Infinity is represented as a composite of interconnected infinite things. This sophisticated process of interrelationships amongst many netentities focuses our attention on how the cause-effect chains are formed inside matter to function and ensure the intercreating course.

On the causality

Causality is a dynamic process in which components can meet in an unlimited number of configurations to function as a cause for a specific effect called outcome. The manner in which this causal formation takes shape will affect how other following causations will be developed. The limitless dynamic of matter in every

echelon, micro or macro, arises from this interrelationship.

The dynamic infinitude of netentity's interconnections accounts for the sameness of all matters and gives rise to our own version of the Theory of Everything (TOE), which states that everything is made up of infinite intercreating netentities. Alternatively, the universe is the infinite intercreating interrelated finite phenomena.

Netentity is therefore a network made of sub-netentities that are constantly intercreating and completing one another, and the same thing occurs in each of these sub-netentities.

Each network object has several layers. The network has momentum at each tier, which accounts for the velocity of interrelationships between network components.

The relative similarity of momenta between certain components at each layer may give rise to a coherent entity known as the finite (a netentity). As a result, the static netentity, which is viewed as finite or an innately cohesive entity, is, in actuality, an endless dynamism

that is in sync with other netentities that all have roughly the same velocity. No netentity with a certain momentum could link to another netentity with a completely different momentum, especially when the latter extends beyond a specific scope. As a result, in order to link, the netentities must be in a range of well-matched momenta.

Every form of matter within our grasp includes, on the one hand, an unlimited life that cannot be apprehensive directly and instantly by our feeling, and on the other, a sectional shot of its momentum that is nonetheless discernible by the inherent dynamism of at least one of our senses.

There are an endless number of ways in which one netentity can influence another netentity; and so are the ways in which this affection functions and expands itself indefinitely. These affections are infinitely dynamic and dynamically infinite. This is what keeps the universe alive at all levels, in microcosms and macrocosms alike. And this is what we can include into our worldview if we want to keep up with the various momenta that exist in the universe. Some precision is still required in this area.

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Netentities' limitless interrelationships are both accidental and regular. 'Accidental' can travel in any direction, but 'Regular' has some mechanical regularity. The consistent interrelations are those that reproduce more or less the same characteristics and features for a network of components (sub-netentities); however, the inconsistent dynamism, which is generated by accidents, is also present and begins to generate and implement new features within the netentity, gradually preparing the conditions for its alteration.

As a result, each netentity has Thesis (consistent and compatible interactions in its sub-netentities), Antithesis (inconsistent and incompatible interactions in its sub-netentities), and Synthesis, which is the result of their interactions.

Thesis, Antithesis, and Synthesis each contain all of the dynamism that will determine their fate (including, among others, shape, structure, power, velocity, and features). When observable to our senses, this internal dynamism accounts for material laws and establishes the framework within which we may act with some

confidence over matter in order to effect the exact changes we intend. It also shows that the existential limits and borders of the matter are not fixed at all and could always be pushed farther, infinitely.

Any mastery of these interrelated networks will provide us with the chance to effect change inside a phenomenon with a specific goal.

In the perspective of a putative system simulation, we will have

- to find solutions for drawing the schemes of interrelations between netentities,
- to code the main interactions and then,
- to simulate them.

The simulation might be built on a known process on the one hand and fed by a huge number of probabilities and chances on the other (accidents). The system should be able to predict the outcomes of each scenario as accurately as possible.

Seeing the world as a netentity made of sub-netentities will form our perception of infinity via a material and realistic basis where components and interrelationships are linked without any disintegrative

division or isolating distinction. Netentity syndicates, melts components and interrelationships, allowing us to see both at a single glance. The non-separation of these two characteristics allows scientists to search for a single process at all levels of matter structure; in microcosm as well as macrocosm; whether it's within the galaxies clusters in outer space or the atoms and electron's cloud in a shingle.

Wherever you look, you can see the always-relative-similar structuration in which components and their inter-links are intertwined to form the construction of any material reality that we believe to be a phenomenon (entity).

With such a broad approach, we have a framework with structural coherence and operational consistency that work together to enable the potential of conceiving theoretical formations as well as practical procedures and instruments for comprehending and dealing with the material infinite. However, all the conceptual and analytical gears must be in place in order to address the intricacy of infinity in the most illuminating way imaginable.

To that aim, the second conceptual instrument we are developing as an auxiliary for a deeper comprehension of infinity is concerned with the intrinsic multiplicity of what we perceive to be a single reality. The neologism for this case is MultiReality.

What is the point of the argument?

No reality can be reduced to a single objective truth since it will always have several, if not innumerable, components. The infinite realities' one is the most accurate concept of reality.

If we acknowledge the observer-dependent version of reality in quantum physics, a similar circumstance can occur at any other level of a phenomenon without our perception noticing it. As a result, the infinity of the interrelationships between observer and object appears to be a manifest point in certain levels, but not in all levels, at the moment. That is why we should explore tools to synthesize, synchronize, and coordinate the many points of view in order to obtain the most comprehensive picture possible; nonetheless, we remain convinced that our perception of reality is always relative and imperfect. When we see a fact, we must keep in mind that we are describing a

multireality. This last term refers to what we often refer to as "truth."

Once the truth is established, reality might approach it as a version of it; hence, what we name "reality" is always, in fact, a mulitreality. We're dealing with one of the numerous interpretations of the established reality, nothing more, and nothing less. This is one story of multireality that is always changing and morphing into another. We consider reality to be stable when its changing interior and constant appearance correspond to our measurements and observations. That is, we accept multireality as fact. And when this latter begins to respond differently to our observation, we regard it as shifting or a changed one

Our anthropocentric approach to reality is always guided by at least two versions of reality: one regarded subjectively as stable and another one as untouchable and objectively moving. The degree to which these two versions vary will determine the amount to which we are successful in functioning and consciously modifying a particular reality. As a result, the greater the disparity between multireality and reality, the more

difficult it will be for us to influence the latter in order to change it, and vice versa.

We notice how fragile and approximate our approach to reality is when we become aware of the vast discrepancies between the two interpretations of reality. This understanding incites us to investigate how we might get greater certainty about a reality that we wish to alter.

In other words, the scientific progress that we make should minimize the divergence between:

- Finitude and Infinitude,
- Entity and Netentity,
- Reality and Multireality.

*

To summarize, we must endeavor to reduce Infinitylogy's assertive activity to pure material occurrences and nothing else. What follows in the next chapters is an attempt to feed the assertions of this new discipline with a scientific explanation of matter's structure. On the one hand, we would want to stress the scientific claims of matter's edifice and the principles of its dynamic; on the other hand, we embrace the need

of calling into question the seeming certainty of some so-called "scientific" declarations.

Let us note that the challenge is delicate and complex. It is quite easy to alienate the scientific community from what Infinitylogy wishes to provide to them as a constructive worldview. That is why we state unequivocally that Infinitylogy would sincerely like to follow the sciences as long as they do not close the door to potential possibilities, which according to the theory of Infinitism, are limitless; this assertion is based on its fundamental principle that states: "everything is infinite or is not." This statement aims to prove that if anything cannot express its inherent infinitude, it does not exist in the actual material world, but only in our entirely subjective imagination. That is to say, if we define finitude as an annulment of infinitude - even if we do it on behalf of "Science" - we are no longer in the realm of matter. As a result, we will not accept all so-called 'scientific' laws and principles automatically and will allow ourselves to question the objectivity of some assertions and statements produced here and there under the tutelage of 'science'.

But, in order to justify this unruly position, which threatens the sacrosanct pitch of ‘scientifically elaborated’, we will not appeal to a preconceived idiosyncratic conviction. We conducted some research on the finest techniques that might be used in a situation of philosophical assessment of scientific facts and discovered that any methodological option that prevents us from considering the profound complexity of matter cannot be a good one. For example, in Paul Feyerabend's book "*Against the Method*," a thinker and philosopher of science, we may find highly noteworthy recommendations such as the ones below:

- We should not be too tied to a specific philosophy or predefined methodology.
- We should be rather thinking about methodologies instead of a single methodology.
- Too much specialization in our approach could make us miss or neglect some necessary points.
- Scientific knowledge should be humanized, or it could be highly deficient.
- It is necessary to be free to discover the complexity of reality if we don’t want to restrain

artificially our mindset and lose the important aspects of this latter.

- We should not be afraid of putting aside ‘the law and order’ methods that alienate us from an objective acquaintance with reality.
- A free-thinking way won’t lead to any chaos, but to better flexibility for discovering the truth.
- The mind should be free to think whatever it wants, without being worried about what will be the consequences.

Such points led us to a critical lecture on scientific truths; they also strengthened our daring approach, in which we went beyond what our shaped mindset dictated as "obvious," "clear," or even "scientifically proven." The consequences of adopting an arbitrary approach are enormous for a law and order 'scientific' line, but not as high or deadly as what we did to our dying planet while totally relying on our so-called 'scientific' viewpoints.

**

In the next chapter, we will begin to understand how philosophy may be integrated into the realm of

sciences to provide inspired explanations and helpful ideas.

**

Chapter II

Infinitylogy and Phenomenology (in physics)

It is predicted that Infinitylogy will initially establish itself in a broad slant of Infinity before becoming more particular regarding the abundant existence of infinitude within matter. We attempted to begin with the widest principles of this field on infinity in our first publication.[10] There has been a wide range of principles presented there. Now, in this volume, we aim to be as explicit as possible about the core thematic of this discipline. But we must remember that we are still in the early stages of its development, therefore we must stick to generalities while delving deeper into individual themes; the objective is to grow an under-construction discipline into a methodologically organized discipline step by step. As a result, we know

10

that these are only the premises and that we are still a long way from the first well-structured form of a new academic discipline known as Infinitylogy.

In the current book's appendix, we describe how 'Speculative philosophy' led us to develop certain theoretical foundations for the theory of Infinitism. Now it's a matter of creating a discipline that will provide the practical familiarity required to realize what Infinitism proposes: Finding unlimited resources in nature. This is the mission of Infinitylogy.

Phenomenology in physics can aid with this latter, especially for hunting the infinitude in microcosms. Our interest in the material existence of infiniteness in the universe implies Infinitylogy would/could/should be related to "phenomenology (in physics)," or more specifically, "particle phenomenology".

Let’s start with a definition:

> “In physics, **phenomenology** is the application of theoretical physics to experimental data by making quantitative predictions based upon known theories. It is related to the philosophical notion of the same name in that these

> predictions describe anticipated behaviors for the phenomena in reality."[11]

This predictive aspect is highly useful to Infinitylogy since it suggests many assertions that are purely speculative and anticipating "behaviors for the phenomena in reality". But these speculations will open well along the path to scientific experimentation and empirical examinations. Here again, we can see the usefulness of phenomenology for what we are intending to do:

> "*Phenomenology* stands in contrast with experimentation in the scientific method, in which the goal of the experiment is to test a scientific hypothesis instead of making predictions."[12]

This feature of phenomenology in physics aligns perfectly with what we've done so far in attempting to present the basis of Infinitylogy. We made certain predictions about how infinity operates within matter, influencing the entire material arrangement of any phenomena. Then we demonstrated and will continue to convey in this book the possibilities for interfering with and operating inside the fabric of matter.

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[11] en.wikipedia.org/wiki/Phenomenology_(physics)
[12] Ibid.

Here we find more precision:

> "Phenomenology is commonly applied to the field of particle physics, where it forms a bridge between the mathematical models of theoretical physics (such as quantum field theories and theories of the structure of space-time) and the results of the high-energy particle experiments.
>
> It is sometimes used in other fields such as in condensed matter physics and plasma physics, when there are no existing theories for the observed experimental data." [13]

Infinitylogy well fits this functionality of phenomenology in physics since we are also studying the Standard Model and seeking the mode of operation of infinity within elements, compounds, atoms, particles, and sub-particles. And there, we will develop the concepts and suggestions that go beyond the observable field of experimental physics.

Again, here, we have some positive points for opting for the phenomenology in particle physics:

> "We know that "within the well-tested and generally accepted Standard Model, phenomenology is the calculation of detailed predictions from experiments, usually at high precision (e.g. including radiative corrections)."

[13] Source: en.wikipedia.org/wiki/Phenomenology_(physics)

But the mission of phenomenology doesn't stop there, since many mysteries remain yet unexplained by the Standard Model. Here enters another new field that goes beyond this model:

> "In Physics, beyond the Standard Model, phenomenology addresses the experimental consequences of new models: how their new particles could be searched for, how the model parameters could be measured, and how the model could be distinguished from other, competing models."[14]

Infinitylogy could then act pertinently in this new field of demonstration in which *infinitude* becomes fully accessible to operate. This is what we see as theoretical models that ensued from "phenomenological analysis". In this latter,

> "One studies the experimental consequences of adding the most general set of beyond-the-Standard-Model effects in a given sector of the Standard Model, usually parameterized in terms of anomalous couplings and higher-dimensional operators. In this case, the term "phenomenological" is being used more in its philosophy of science sense.[15]

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[14] Ibid

[15] "*Phenomenological Theory*", Condensed Matter Physics, John Wiley & Sons, Inc., 2010-11-30, pp. 611–631.

Once again, we can see here the very usefulness of philosophy for science, i.e., the practicality of phenomenology for physics. That also justifies the arrangement that we recommend for the combination of philosophy, science, and technology as the elaborating pillars of the *Infinitylogy*. (See the scheme in the next page)

In the coming chapters, we will apply this phenomenological analysis in physics in the frame of beyond-the-Standard-Model and as a preliminary stage in the examination of the unlimited scope of the infinitude within matter. The implicit upshot of this examination will be to demonstrate our claim in the introduction of this book where we held that infinity is not depending on the matter, but the matter depends on infinitude.16 We will see how this misplacement had been harmful for the history of science.

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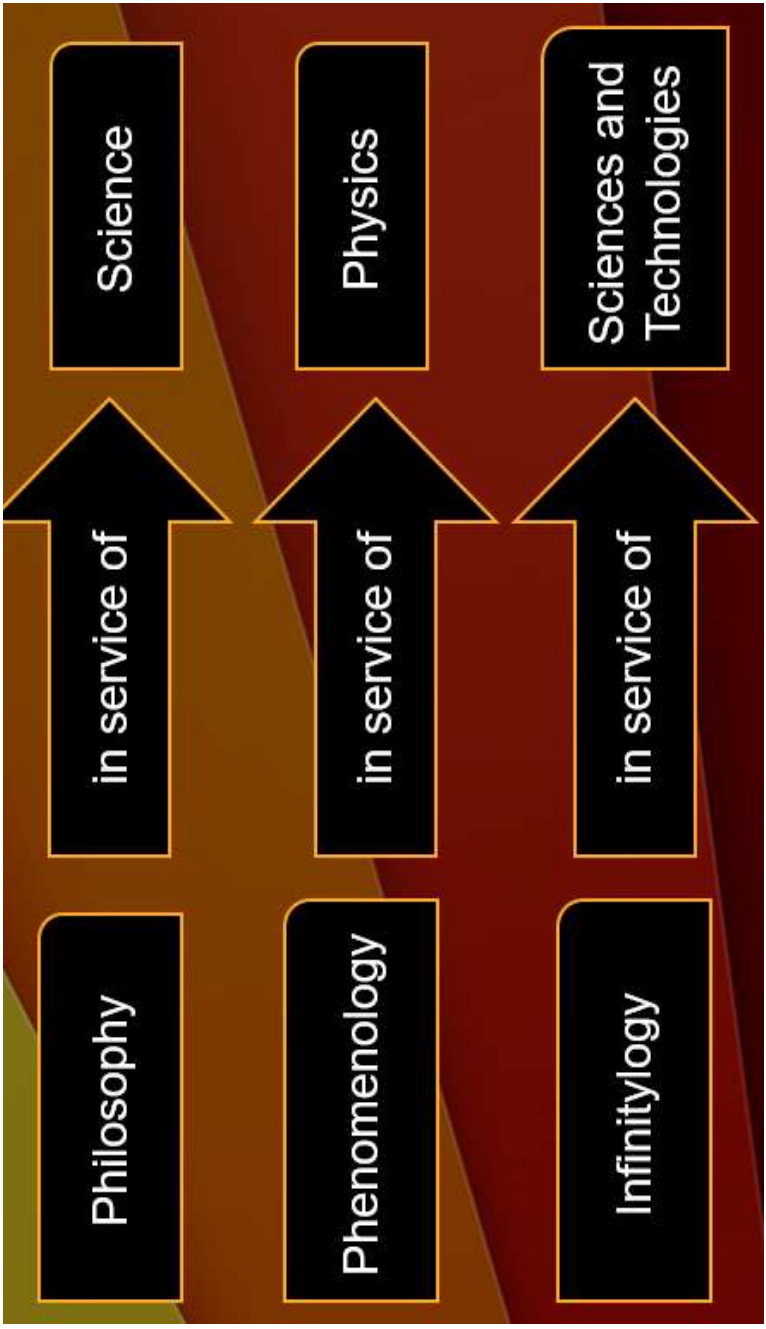
[16] We can say also: *Infinity is not a feature of matter but the matter is a feature of infinitude.*


Philosophy
in service of
Science
Phenomenology
in service of
Physics
Infinitylogy
in service of
Sciences and Technologies

Chapter III

A Critical Lecture on Standard Model

Once we prove all realities are multiple, we should illustrate how multiplicity works. To accomplish this, we should delve into the structure of matter, where we may observe or measure the interactions between particles and sub-particles and their respective formation.

But before we proceed, we want us to be clear that this chapter determines the current gap between the scientific perception of matter and the theoretical infinitude within material structuration, as suggested in the previous chapters.

Consider the following comparison study.

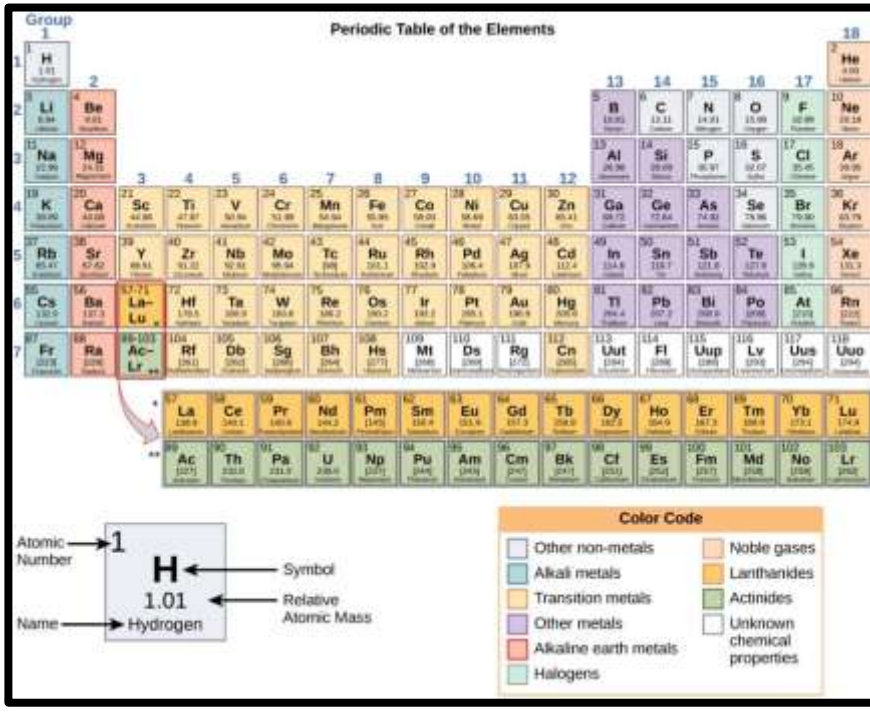
*

What follows is a critical lecture on the official version of science on the structure of matter. We will show how several widely accepted scientific statements are

darkening a broader potential capacity that the Scientists could have had over the matter and its modifiability.

*

We know that chemistry, one field of science, classifies matter into Elements. All the elements are presented in a table that is known as the *Periodic Table*.[17] (See below)



[17] Source: kontaktplus.biz

The elements can be in what is termed currently their "pure state" or combined ones (compounds). We examine the interconnections of their components based on our classification of the connections within matter in their so-called "pure state." We also examine their Outer-connections when they are combined.[18]

The ambiguity arises from the basic definition of Element. To illustrate how incorrect views on this topic spread, we share a relevant example from a well-known book:

> "Each oxygen atom can never itself be broken down or taken apart into something simpler. This principle of indivisibility is what makes an element and element."[19]

If this author is reproducing a few wrong ideas in just one phrase, it's because these ideas have been, for a long time and repetitively, offered and believed as mere scientific truths. In order to carry a critical review on that, we could see how the *Element* itself had been defined:

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[18] See page 27 for this classification.

[19] GRAY Theodore, *The Elements* (*A visual exploration of every known atom in the universe*), Black Dog & Leventhal Publishing, 2009, p.5.

> "Every oxygen atom can never be broken down or disassembled into a simpler form itself. This indivisibility principle is what defines an Element."."[20]

As we can see, there are three limiting constraints in this definition that are attributed to matter, and by inference to the Element:

1) That the elements cannot be interconverted.
2) That the elements cannot be broken into smaller components.
3) That the elements are the primary constituents of matter.

All three of the above assumptions are questionable when placed within the context of the infinitist approach to the matter, as previously explained. Why and how? Here we describe our arguments based on our idea that infinitude runs in the structure of matter:

1) **That "the elements cannot be interconverted".**

This is not true since each phenomenon that interacts with others has the potential to impact and be affected by them. If these mutual affections continue to be deep and far-reaching, they have the potential to change and

[20] General definition in many books of science.

even hypothetically convert them. Giving the image of an ‘inconvertible’ character to elements stems from conditioning the process of conversion by time or by the human capability of observation and measurement; we remind ourselves that these declarations are man's fabrication focused on the knowingly deficient anthropocentric approach of material infiniteness. Infinitism asserts that the entire existence is timeless, and time is nothing more than a man-made historical fabrication to quantify changes.

Any conversion of an element into another one is possible by constant interactions and in the absence of time; we should also take into account the role of accidents in the countless dynamic micro-exchanges between elements or their components. Neither the tiny nature of the process by which conversion occurs, nor our inability to perceive it, should be taken as an absolute lack of any possibility of conversion.

So, the first issue we observe in this classic definition of Element is an artificial barrier that science erects between the infinite amount of events and occurrences that can happen in the countless tiers of any matter's superstructure, which are simply unrestricted in our

infinitist approach. Once the infinitude of strata and their compositions is established, we can readily imagine the potential of endless becoming and occurrences such as interconversion of elements.[21]

- **That “the elements cannot be broken into the smaller components”.**

This is also incorrect, as it is founded on the assertion of Infinitism, which states that any phenomena - in this case, an 'element' - is not only structurally divided but also indefinitely so. The lack of scientific theory to support it, as well as technological means to observe the infinite layers of subcomponents in an element, should not stand in the way of philosophical speculation, or more precisely, a phenomenological approach, for suggesting smaller components in an element ad infinitum. We shall see later that the atomic structure of elements is formed of sub-particles, which can be entities composed of infinite sub-entities, and so on.

[21] The impossibility of conversion of elements to each other established by the science is in fact an epistemological flaw that looks like an ‘interdiction’ to the poor elements to attempt any conversion!

The above false assertions frequently originate when we overlook an epistemological fact: that the vastness of Matter should not be reduced by our inherently restricted knowledge. We already saw that all along with history, the more powerful we become in our capacity of theorization and tool-making, the new levels and components of matter had been revealed to us. So, how is it that we suddenly forget this obvious datum of the history of science and think that we eventually touched the 'end' of something endless, i.e. the fabric of matter?

Infinitism follows on from this historical obviousness, expanding on searching for infinity in the universe and confirming that there will never be an end to material reality or to its search.

- That "**elements are the primary constituents of matter**."

Such a thing as "primary constituents" couldn't exist in any form. Again, from an infinitist standpoint, there is no such thing as a level that can be classified and called as such. There will always be lower and smaller tiers of

matter's structure.[22] To investigate and find them, we just need vision, instruments, and techniques. Two thousand years from now, there will undoubtedly be newly discovered layers of matter's composition as a result of that time's increased talents. And yet, even five thousand years in the future, intelligent humans on Earth or other auxiliary planets will be digging further into the fabric of matter. So, there is no end since there is never a smallest, ever. "End" is a subjective concept, but "endlessness" is objective. The matter can only exist in its infinite form.

*

If we fix all three misunderstandings in an infinitist manner, we will obtain the right definition of Element: "Each of more than one hundred substances that can be chemically interconverted or broken down into simpler substances in one of their endless levels of components."

So, now, with such a different and revised understanding of Elements, we can delve deeper into

[22] In another book that we are going to publish after the current volume, we develop this topic by the following statement: "Everything is composite, there is no elementary particle."

their structure and see if there are any other similar misconceptions.

*

With this brief critical reorientation, we are now logically led toward the inner levels of the matter. As we begin with Element, we will now look at its constitutive structure, which is known as the 'Fundamental Particles'. Most of us are familiar with the electron, proton, and neutron; however, there are several more particles and particle combinations. We continue our critical lecture on definitions and narratives on this subject.

Let's first see how today's science is awkwardly combining fact and fiction to present these particles.

> "**Fundamental particles** (also called *elementary particles*) are the smallest building blocks of the universe. The key characteristic of fundamental particles is that they have no internal structure. In other words, they are not made up of anything else."[23]

Once again, we can observe that presupposed assumptions are greatly overshadowing the real

[23]Source: mpoweruk.com/standard_model.htm

aspects of these particles. Several deficiencies emerge in the above statement:

- They are supposed to be the “smallest building blocks of the universe”.
- They have strangely “no internal structure”.
- They “are not made up of anything else”, nothing!

When viewing these assertions, one may feel as though they are reading a principle similar to the Ten Commandments. Let us look at some of these baseless ‘scientific’ claims:

- **The fundamental particles are “elementary particles”.**

As we have stated -and we will repeat- there is no such thing as 'elementary' in the infinitist viewpoint. The simple core of infinity implies that there are no elementary or basic particles in the literal sense of the term; until we explicitly state and specify that we are naming anything as such temporarily and contractually until further notice. We can justify it by saying that, while we know that there are infinite members in any material edifice, at this point in its

history, we have baptized some of their known ones as 'elementary'; We can do this while remaining fully aware that this contractual designation does not deny the reality of the matter that has no limitation in its construction. As a result, we should keep the door of explorations and discoveries open by adopting a worldview that avoids imposing arbitrary restrictions on what we could learn in the deeper layers of material phenomena.

- **They are "the smallest building blocks of the universe."**

When it comes to the microstructure or macrostructure of the universe, there is no superlative adjective possible to be applied. So, in the infinitist outline, there cannot be smallest, tiniest, lowest, or alike, since the endlessly smaller or bigger components of matter don't stop as we wish. What drives us to use superlative adjectives is either a lack of knowledge and tools to detect deeper levels compared to the observed ones, or a lack of conceptual resourcefulness.

- They '*have no internal structure*".

This segment of claims is maybe the poorest one since here we are not in science nor in a sort of

misconception, but in pure superstitions. The statement is telling us that there are particles that are made of ‘nothing’. Is it magic or a miracle? This assertion shows how science could turn into pure phantasmagoria when it’s deprived of steady running support of philosophy.

Where such a historical deviation started is not the question here, but what is regrettable are all the opportunities that we missed when we turned our back to the philosophy and started to adore visionless empiricism that transformed itself into scientism.

How we could announce that “the particles have no internal structure” while we know that there is no non-trivial reality that could be identified as matter. Anything, to be pertinently called ‘matter’, should possess an inner constitutive structure shaped by some contributing subcomponents.

To highlight this tragic stumbling block, consider what Epicurus, the creator of the term "atom," had said more than 2000 years ago:

> “Moreover, the universe as a whole is infinite, for whatever is limited has an outermost edge to limit it, and such an edge is defined by something beyond. Since the universe has no edge,

> it has no limit; and since it lacks a limit, it is infinite and unbounded. Moreover, the universe is infinite both in the number of its atoms and in the extent of its void."[24]

Or, in this quote from himself:

> "There are infinite worlds both like and unlike this world of ours. For the atoms being infinite in number...are borne on far out into space."[25]

Would we have required a greater depiction of an infinite viewpoint in microcosms and macrocosms to have pushed science and technology on or after that date in pursuit of infinite components?

So, isn't it a mere degradation that scientists in the twenty-first century are still talking about the 'smallest' particles as if we've reached the bottom of the universe?

Whereas the entire Science's reliability is built on objectivity, we observe our scientists boldly and subjectively claiming that these elements "don't have

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[24] Epicurus (1964), "Letters: Principles Doctrines, and Vatican Sayings Translated, with an Introd. and Notes, by Russel M. Geor. Indianapolis Merrill".

[25] Ibid. And also we could refer to the works of another Greek Philosopher, Anaximander, who claimed that "from the infinite comes the principle of beings". Source: wikipedia.org/wiki/Anaximander

any internal structure." Once again, we can witness that without philosophy, as the mother of all sciences, how its children could be cuckolded by a beautifully ornamented nonsense. Here we have an occasion to see the methodological decency of Infinitylogy that would like to create a discipline that intertwines coherently with philosophy, science, and technology to address this historic epistemological disappointment.

And finally, the last part of that above statement:

- They “are not made up of anything else”.

Is it possible to create something out of nothing? Is it possible to exist without constituent blocks? Is it possible to be something that does not have a mathematically nontrivial character and nonetheless falls under the material category? We can see the enormous gap here between such a fantastical assertion and the basic statement of Infinitism that 'everything is infinite or is not.' While this so-called 'science' tells us that there are phenomena made of 'nothing' else, we argued everything is made of an infinite number of material subcomponents. Infinitism is the belief that everything is infinite.

In summary, science should free itself from its artificial limits with the assistance of philosophy in order to explore the boundlessness of the universe and become very useful and practical for technology.

*

After reviewing the "scientific" approach to Elements and so-called "elementary particles," we may derive two significant findings and then proceed. We would propose, using Infinitism and Infinitylogy, that:

1. There would never be the smallest particle in the universe, but just smaller, and this goes forever. So ‘elementary’ means nothing in our approach.
2. Any particle has an internal structure that could be divided in smaller sub-structures, ad infinitum.[26]

With these two rules set, we could go over the internal arrangement of elements and see what they are and how they act.

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[26] Source: physicsclassroom.com/class/estatics/Lesson-1/The-Structure-of-Matter

Particles and their configuration

"There are two types of fundamental particles:

1. Particles that make up all matter, called *fermions*,
2. Particles that carry force, called *bosons*.

- **Fermions**

According to science, all matter is made up of fermions, and these fermions come in two types: *leptons* and *quarks*.

  - **Leptons**

Leptons are the fermions that are considered *solitary particles* since they operate alone and do not form groups.[27] Leptons come in six different varieties called *flavors*. The six flavors of leptons are:

1. Electron
2. Electron neutrino
3. Muon
4. Muon neutrino
5. Tau
6. Tau neutrino

[27] We treat this part cautiously since we know that what we see as "solitaire" is full of infinite subcomponent innermost.

Listed in order of their mass, from lightest to heaviest, the *electron* and *electron neutrino* has the least mass of all six, and the *tau* and *tau neutrino* are the heaviest of the group.[28]

- **Lepton Charges**

Leptons carry a negative or neutral charge known as an integer charge. (*Their charge is a whole number or integer*.)[29]

- The *electron*, *muon*, and *tau* all carry a negative (\-) .charge
- The *neutrinos* carry a neutral (0) charge.
    - **Quarks**

Not to be outdone by leptons, *quarks*, which are the other type of *fermion* that are grouped together, also come in six different flavors:

1. Up
2. Down
3. Charm
4. Strange
5. Top

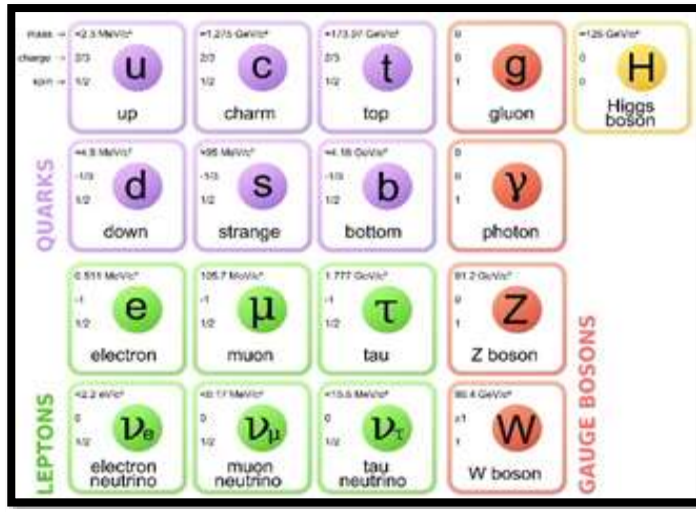
[28]Source: study.com/academy/lesson/fundamental-particles-definition-principles-examples.html

[29] We know that any *Integer* (whole number) is composed of infinite fractions. By referring readers to our discussion about "static mathematics" and its difference with "dynamic mathematics" we could see that the lepton charges, presented as "integer", have though infinite variety within them by the fact that the fractions of any integer are infinite. These fractions in our infinitist viewpoint are, in fact, the representation of the countless number of sub-components that you could effectively find within the matter.

6. Bottom

Quarks are also listed in order of their mass, from lightest to heaviest. The *Up Quark* has the lightest mass of the group, and the *Bottom Quark* is the heaviest.

All together, these sub-particles compose the matter. They are all arranged in a table called *Standard Model*. Here it is:[30]



Standard Model of Fundamental Particles

- Quark Charges

To further distinguish themselves from *leptons*, *quarks* don't carry the same full charge that *electrons* do. They carry a positive or negative fractional charge, which is a fraction of the charge of an electron's integer charge.[31]

[30] Source: wikivisually.com

[31] Ibid. With regard to the fractional character of these charges we refer also to the *Fractal theory* of the structure of matter where the *Mandelbrot* model

- *Up*, *Charm*, and *Top* carry a 2/3 positive charge.
- *Down*, *Strange*, and *Bottom* carry a 1/3 negative charge.

All *quarks* and *leptons* have oppositely charged particles called antiparticles. For example, you can have a *charm antiquark*, an anti-electron (called a *positron*), and an anti-neutrino. [The presence of these antiparticles can be interpreted as a richer variety of subcomponents at this level].[32]

As we mentioned previously, *leptons* are solitary particles; they like to be by themselves.[33] *Quarks*, on the other hand, are very social and bond with others."[34]

*

Now that we mentioned a classic presentation of the particles in the *Standard Model*, we should review the content to see if we can find some more or less similar deficiencies in these definitions or not. This critical study may call into question the reliability of the

tries beautifully to illustrate it. Each fractal portion opens to an infinite structure of the sub-sub-particles.

[32] The infinitist approach suggests that this variety is unlimited when we go in the deeper structure of matter.

[33] But only in apparent, while we know that they have countless baby-particles in their bully.

[34] Source: study.com/academy/lesson/fundamental-particles-definition-principles-examples.html

statements as well for the sub-particles in the Standard Model, as the 'forces' listed in its table.

We stated that what represents the infinitude is interaction. By this latter, we mean any kind of action that involves two or more objects with an influence upon one another. In our infinitist view, any action is an interaction; i.e. any exchange between cause and effects is two-way and mutual. No cause is out of an influence of its effect (s); moreover, we know that every cause had been itself an effect, and any effect is also a cause for its own effects.

So, we can say that infinitude is an endless accumulative interaction; i.e. infinitude represents continuous interconnectivity. We insist on the fact that the chain of events generated by an action goes in at least four directions:

1. From the cause to the effect
2. From the effect to the cause
3. From the cause acting as an effect to its cause(s)
4. From the effect acting as cause to its effects

As a result, no matter how we monitor it, any causal chain is endless.

Based on this explanation of interconnectivity, we return to the Standard Model's discussion of the many types of forces. What is disturbing our infinitist methodology of the endlessness of causal chains is the beliefs we introduced in 'Science', making our sight blur. For instance, when it comes to the interactions in physics we read:

> "In physics, the fundamental interactions, also known as fundamental forces, are the interactions that do not appear to be reducible to more basic interactions."[35]

Once again, we witness individuals fantasizing, this time about forces, first by calling them "fundamental" and then by dictating that they "do not appear to be reducible to more basic interactions."

We dispute this made-up confirmation and counter-argue:

- Any phenomenon is a set of interactive components.
- Any component is a set of interactive subcomponents.

[35] Source: en.wikipedia.org/wiki/Fundamental_interaction

- Any subcomponent is a set of interactive smaller subcomponents.
- This process goes endlessly.

We also remark that each component is nothing more than an infinite number of interactions made up of smaller interactions. Therefore:

- Any interaction is divisible to sub-interactions that compose it.

And there is no end to this divisibility.

From this argument, we conclude that there would be not only four, but an infinite number of forces in the universe of which we know four. So, we state:

1. Each of these four known forces (*electromagnetism*, the *strong force*, the *weak force*, and the *gravity*) is divisible indefinitely to the smaller parts/sub-forces.[36]
2. There would be in the universe a potentially infinite variety of forces from which four are known to us till now.

[36] So this idea opens the way to conceive the energy as divisible into the infinite smaller parts. By breaking the energy down into smaller components we can treat the sphere of micro-energies where the laws and rules of their action could be different from what we already know. The things get more exciting when we presuppose that the divisibility of energy is supposed to be endless as well.

That brings us to a general conclusion that could be also a systematic tip to understand almost everything in the universe, concocting a primary formula for the birth of a *Theory of Everything* (TOE). Here is our suggestion:

Any matter, because of its structure, is nontrivial.[37]

We might also put this claim in the context of Infinitism and say:

Because the structure of any phenomenon is infinite, everything is nontrivial.

As soon as we can confirm the nontrivial character of a phenomenon, we could confirm that it's infinite. In the same way, as we know every phenomenon is infinite, we could be sure that it's nontrivial.

*

Now, by using the *Standard Model*, on the one hand, and our ruling assertion of *infinite* components in all phenomena, on the other hand, we try to see if we could get a formula that theorizes the endless substrates of the fabric of matter or not. Here is our trial:

[37] Nontrivial: (In mathematics) 1) Having some variables or terms that are not equal to zero or an identity. 2. Mathematics Of, relating to, or being an expression in which at least one variable is not equal to zero.

A formula for the infinite

If there are some common characteristics in the bedrocks of material, they should be able to be expressed by a universal formula. Any component, at any level of the structure of a phenomenon (Element, Molecule, Atom, Particle, and Sub-particle) should find its structural infinitude defined through this formula. Here is how we elaborated our formulary, based on this idea that each phenomenon is composed of infinite levels in its structuration:

Assertions:

- A phenomenon is composed of an infinity of components.
- A component is composed of an infinity of Sub-components.

Therefore:

- A phenomenon is composed of an infinity of components and subcomponents.

While we know that if we name all Phenomena, Components, and Sub-components as *finite*, we can say:

- The matter is composed of infinitely smaller finite components.

Or:

- The matter is the infinite finite components.

Or again:

- The matter is the infinity of finite components.

By knowing that any finite (i.e. any phenomenon, any component, and any sub-component) is physically infinite, we can say:

- Finite is infinite.

And as finite means matter.

- The matter is infinite.

Or again, as we know that each element of matter results from interconnections of the finite components, we could say:

- Infinite makes matter.

Now, for the sake of easing the expression of these assertions, let's see how we could build it up as a formula.

Abbreviations:

- M=matter
- P=phenomenon/phenomena
- C=component/components
- SC=subcomponent/subcomponents
- F=finite (All entities or netentities or phenomena then, all components and then all subcomponents, or, in general, the substance)
- Σ=composed of / made of (includes objects and their interactions)
- ∞=Infinity

Formulation

Statement	Formulation
A Phenomenon is composed of an infinity of components.	$P=\Sigma\infty C$
The Component is composed of an infinity of Sub-components.	$C=\Sigma\infty SC$
A Phenomenon is composed of an infinity of components and subcomponents.	$P=\Sigma\infty C\&SC$
We name all Phenomena, Components, and Sub-components as finite.	$F=P\&C\&SC$
The Matter is composed of infinitely smaller finites.	$M=\Sigma\infty<F$
The Matter is infinite finites.	$M=\infty F$
Matter is infinite.	$M=\infty$
Infinite is matter.	$\infty=M$

Again, there is the concept of 'Sameness', according to which all substances have the same general inner structure and hence are subject to the same principles.

Infinite Intercreative Interactive finites make up material existence.

This is where we can see that the "materiality of infinity" is actually the “infinity of materiality." Here are the logical conclusions:

- *Because the matter is made of infinitude, the matter is infinite.* And
- *Because the matter is infinite, it is infinitely being made.* Therefore,
- *The matter is made of infinitude in action.*

Everything is an ongoing infinite, either in the microcosm or in the macrocosms simultaneously. Then,

- *Infinitude means the infinite dynamism of creating the matter.*

Existence is caused by the infinite character of matter, and the matter is made of infinitude in action. Therefore, nothing can exist if there is no creating infinite dynamism.

As a result:

$$Ph = \infty\Sigma\infty C$$

We read:

Phenomenon equals the infinite gatherings of infinite interconnected components.[38]

Here we can replace 'Phenomenon" with 'Matter', 'Universe' or even 'Existence'. Even though we could arrange them in a kind of arbitrary hierarchical order, they contain all the same structural substance (sameness).

Back to the Standard Model

Now, based on this formula and by referring to the *Standard Model*, we suggest the following structuration for the matter: [39]

- Element: Σ Molecules
- Molecule = Σ Atoms

[38] See: physics.stackexchange.com/questions/16048/what-are-quarks-made-of

[39] For more information, see:

- forbes.com/sites/startswithabang/2021/02/15/whats-really-inside-a-proton/?sh=2fff8d106f6b
- physicsfoundationsblog.wordpress.com/2007/11/09/hierarchy-of-matter-complexity-scientific-dependency-relationship-of-matter-energy-information

- Atom= Σ Protons, Neutrons & Electron
- Proton= Σ Hadrons
- Hadrons= Σ Quarks
- Quark= Σ Up Quarks & Down Quarks
- Up Quark=Σ Peron
- Peron=Σ Sub-Peron(s)
- Sub-Peron=Σ >Sub-Peron(s)
- >Sub-Peron=Σ...>∞

Neutrons

These particles are only the decay products. A neutron is made of 3 quarks, one *up quark*, and 2 *down quarks*, and many "intermediate particles" called gluons which carry the interaction between the quarks. Then:

- Neutrons= Σ Quarks & Gluons
- Quark= Σ Up quarks & Down quarks
- Gluon= Σ Sub-Gluon(s)
- Sub-Gluon= Σ >Sub-Gluon(s)
- > Sub-Gluon=Σ...>∞

The Gluons have 9 types:

red / anti-red,	red / anti-blue,	red / anti-green,
blue / anti-red,	blue / anti-blue,	blue / anti-green,

green / anti-red,	green / anti-blue,	green / anti-green[40]

One can imagine that each of these nine types, being a particular kind of *Gluon*, its inner structure should have a specificity that is given to each type, a different color.

So, we can imagine the same formula for each of these 9 types of *Gluons*. As an example, we present below only one of them:

- Red/Anti-red Gluon=Σ Sub-Red/Anti-red Gluon
- Sub-Red/Anti-red = Σ > Sub-Red/Anti-red Gluon
- > Sub-Red/Anti-red Gluon = Σ...∞

So, we see that for breaking any stuff down we could put in the underneath general formula and obtain a basic idea about how it's composed:

$$X = \Sigma \infty \ (>X)$$

We read:

Any stuff is a gathering of its infinite sub-stuff.

(Any stuff (X) is a gathering (Σ) of its infinite (∞) sub-stuff (>X).)

*

[40] Source: math.ucr.edu/home/baez/physics/ParticleAndNuclear/gluons.html

This chapter provided a brief example of the concept of matter being made up of infinite interactive layers. Finding and exploring these levels is subject only to the restrictions we may impose on ourselves: those of our vision, mentality, knowledge, and tools. Through the theory of Infinitism, we are trying to remove the one of the vision, and by Infinitylogy, we are trying to create an organized system of philosophical hints, scientific explorations, and technological interventions over the infinitude within the matter.

So, this is where philosophy interferes in the scientific sphere of our culture and tries to free it from its superfluous and self-constructed confines. As long as we don’t break down these man-made so-called ‘scientific’ shackles from our creative mind, we cannot see the potential endless resources the nature possesses and could supply us.

This intellectual liberation is provided by philosophy. Infinitism is a philosophical doctrine that states unequivocally that "anything is infinite or is not." As a result, when we don't see infinite in anything, we're actually talking about something that doesn't exist in

the physical world. This is also true for the infinite structure of any Element, Particle, or Sub-particle discussed in the Standard Model. As a result, Infinitism's recommendation to apply infinitude in any element is not a fantastical concept, but a genuine option.

In the following chapter, we will continue our exploration and go into further detail regarding the technicalities of this proposed operative interference in the fabric of matter.

**

Chapter IV

Isotopic revolution

There would be endless ways and methods we could set up to intervene in the configuration of matter. Since the structure of any material phenomenon is infinite, so will be the ways of changing it. As an example, the idea that we are using here to prove this assessment is "isotope" or more concretely "micro-isotope" as a demonstrative method of changing the building of any material stuff.[41]

What is an isotope?

Here is a classic definition:

[41] We emphasize that our approach here is rather philosophical -or more precisely phenomenological- than scientific or physical, properly speaking. What we develop under the title of "isotope" is just as an example to give an idea on the numerous possible technical solutions that we could set up to touch the deep sphere of the fabric of matter where the infinitude is running. So, the development of this isotopic approach is not presented here for its scientific precision but for its philosophical interest to widen our mind about the infertile concepts of scarcity and finitude.

> "Each of two or more forms of the same element that contain equal numbers of protons but different numbers of neutrons in their nuclei, and hence differ in relative atomic mass but not in chemical properties; in particular, a radioactive form of an element."[42]

So, by going deeper into this structure, we can see that an isotope-alike process can occur at any level or sublevel of the structure. Hence, the word "*sub-isotope*". A sub-isotope could take place far from our observation, but it happens, and it would be a question of time to discover that. As we put the time to figure out the presence of new sub-particles, we have also to be patient to decipher how the sub-isotope-alike process is creating a variety of possibilities for any material alterations.

Every atom (and also every smaller particle) contains an infinite number of potential or effective sub-isotypes that, as a whole, make that atom "unique". The uniqueness of each atom, or more subtle particles of matter, means that there would be no case of total similarity between two phenomena in the universe,

[42] General definition in all scientific references. Like in: www.encyclopedia.com

despite the size or number.[43] This means that every molecular structure has its singular substructures. We could see this unlikeness in some levels of its constituting edifice, even though some shallow and apparent similarities could always be striking. This unique configuration could be called the "*Existential Signature*" of each object. Every single entity, whatever is its extent or its complexion, has a unique building structure. We could see this easily, for instance, in the different shapes of galaxies, while when it comes to microcosms, we wonder if the same countless varieties would be there or not too.[44]

The concept of "Element" is defined by the multitude of atoms in which there is a 'similarity', considered as the atomic number; if the number of atoms changes, we identify the dissimilar structure as a 'different' Element. In the same way, we could have an infinite number of sub-elements inside each element with the

[43] This could be better understood by referring to the *Wolfgang Pauli*'s works on the quantum physics and specially his "*Pauli exclusion principle*".

[44] Some billions of galaxies in the universe have, each, their singular arrangement of stars and planets without any chance to get two of them 'totally' similar. So, the same zero probability of total similitude will be ruling the microcosms where any atom – seen as a galaxy with its subatomic particles (like planets) - would have its unique inner structure.

innumerable dissimilarities of what can be called 'subatomic numbers'[45] (like 'atomic number').

This means that if we explore, bit by bit, the smaller structural compounds of matter –like the subatomic particles and their subcomponents– we would discern some segments of their inner causal chains that are determining the atomic number and through this latter, the type of *element* that comes up. Now, if we learn to adjust those contributing segments and their participatory sub-particles on purpose, we will revise the outcome, which is its atomic number- and thus get a different element as the outcome of our micro-intervention(s).

Consequently, we may claim that the Atomic Number in any Element is formed and conditioned by a type of serial subatomic number. The presence of this latter implies that a more or less identical process would be repeated in any deeper sub-particle levels of matter's structure, and that this sequencing process may continue indefinitely.

[45] We use this neologism to give an idea of the countless variations that the subatomic particles could generate by their different arrangements.

The causal chain of any entity contains these infinitely interconnected and dynamic combinations. So, we have to deal with a lot of sequencing and maybe hierarchical subatomic numbers – or something similar – inside every single atom, opening the passage to conceive operations of altering, interminably, over the substructures of the matter, in order to obtain the specific final result we want.

The Brownian motion[46]could be a suggestive field of action for the sub-particles to see the existence of the infinite possibilities and the unbounded variation of these particles. At least we could be sure about the dissimilarities due to the divergence of each atomic structure at a "*given moment*". This moment is being infinitely subdivided into smaller and smaller bits.

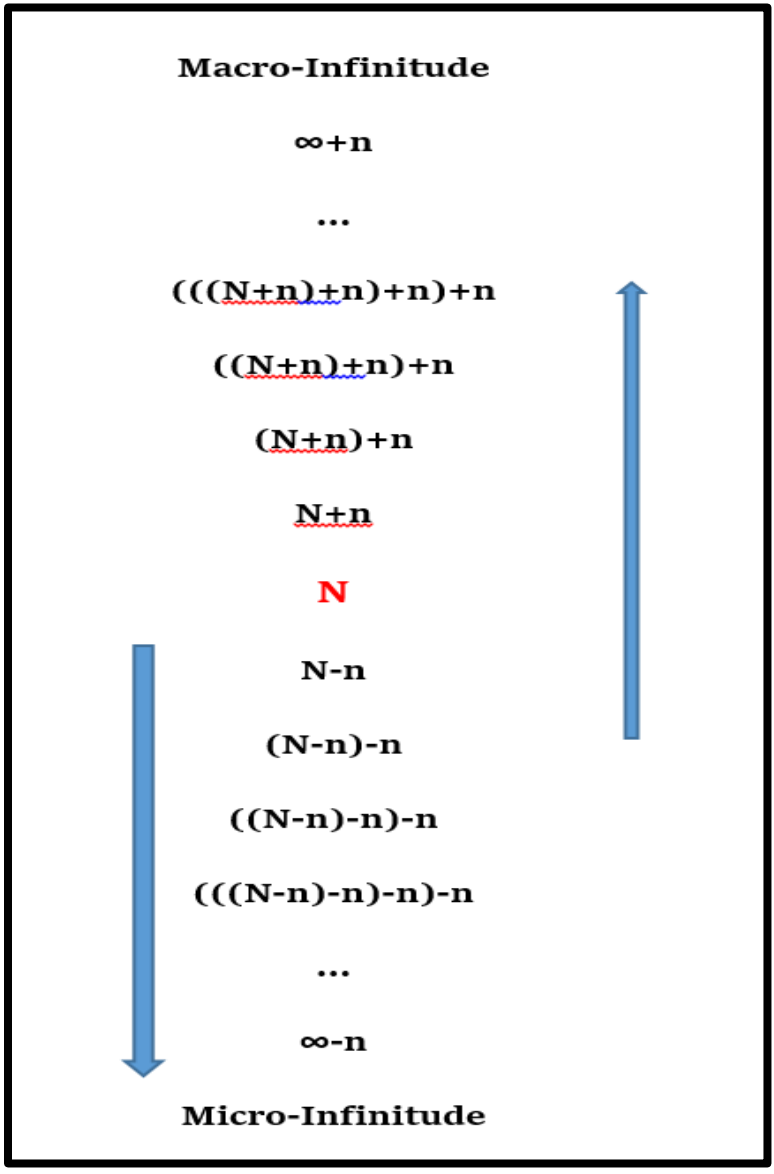
In this section, we will construct a scheme to demonstrate that the levels of structure of matter in the microcosm and macrocosm are simply limitless and

[46] "Brownian motion refers to the random movement displayed by small particles that are suspended in fluids. It is commonly referred to as Brownian movement". This motion is a result of the collisions of the particles with other fast-moving particles in the fluid. …Brownian movement causes the particles in a fluid to be in constant motion. Source: byjus.com/chemistry/brownian-motion-zig-zag-motion

may therefore be the areas of human intervention to organize deliberate adjustments to produce the desired output, such as the micro-isotopes we suggest. As we can see, there are no bounds for any intelligent being that believes in the infinity of substructures and their infinite capacity for modification.

Here is our suggestion:

The scheme's lecture begins with N in the middle, representing any phenomena with its own set of components and subcomponents.


Macro-Infinitude
∞+n
...
(((N+n)+n)+n)+n
((N+n)+n)+n
(N+n)+n
N+n
N
N-n
(N-n)-n
((N-n)-n)-n
(((N-n)-n)-n)-n
...
∞-n
Micro-Infinitude

Where:

N=Quantity of components that constitute a given entity.

n=Quantity of sub-components that constitute a given component.

In all cases:

N#n (because of the impossibility of absolute sub-structural similarity)[47]

In the sphere of Macroinfinitude:

N=n (never in the absolute meaning of equality or similarity)

N<n

N>n

In Microinfnitude:

N>n

This scheme demonstrates that the possibility of dissimilarity between all phenomena in the universe is endless, because each phenomenon will have a distinct

[47] Again here we refer to the Pauli Exclusion Principle.

configuration in at least one of the infinite tiers of its essential structure.

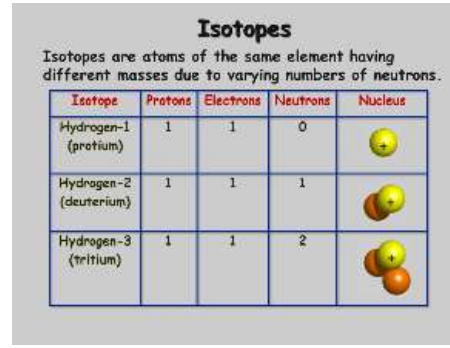
We could constantly discover deeper subatomic particles, their interconnections, and functional rules, and so on; and if we invent the appropriate [Nano/sub-Nano] technologies, we could create an infinite number of micro-isotopes -or analogous technics- to redefine and reshape the atomic and subatomic edifices of elements. There would be no such thing as an inaccessible sphere of matter in this worldview.

By 'Micro-isotope' or 'Nano-isotope,' we implement structured manipulations over one or more compounds of the sub-particles such that its higher aftermath particle may be transformed into a targeted one, resulting in a change of Element as a final point. If necessary, this procedure might be divided into many tiers or segments to get the desired result. Any conversion at any level of matter's hierarchical structure might be made achievable by micro-isotopes or identical technics.

Here is an example regarding *Hydrogen* and its two isotopes. This is imaginable that we could increase

these only two isotopes, many more, particularly in the deeper levels of the hydrogen's substructure.

The explanation below will give us some raw premises on such an isotopic procedure for unlimited possibilities of change and manipulation.



Isotopes

Isotopes are atoms of the same element having different masses due to varying numbers of neutrons.

Isotope	Protons	Electrons	Neutrons	Nucleus
Hydrogen-1 (protium)	1	1	0	
Hydrogen-2 (deuterium)	1	1	1	
Hydrogen-3 (tritium)	1	1	2	

Isotopes of Hydrogen

*

This is our theory, which summarizes the preceding chapters' development:

> *Each sub-particle of the atom is made of unlimited sub-components. And each sub-component is made of the smaller stuff, and this lineage goes incessantly. Now, we suggest that through nanotechnology -or alike- we can create endless variants in the composition of sub-components. This means that by the artificial Nano-isotopes -or comparable technologies- we could manipulate efficiently the inner causal arrangement of each sub-component in order to convert its immediate*

upper effect in the continuous causal chain; by such an operation we implement the modifications that alter the substructure of an atom and hence, by channeling its subsequent chain of events, we can gain the additional elements. When workable, this kind of operational initiative will provide limitless possibilities of alteration in the fabric of matter; and it will deliver us as well the reproduction of known Elements as the production of new ones.

If so, by the endless combinative operations we could create -through shifting the substance of different levels of substructures- a countless amount of variants for -at present only 118- elements. Thereof, we could be able to fabricate anything and in any magnitude. This is how the theory of Infinitism counts meeting its real practicality. We call it symbolically an *isotopic revolution* in the era of sciences and technologies. A revolution instigated by philosophy.

As a result, in this hypothesis, there are several presuppositions:

- The matter is made of infinite components.
- Each component is made of endless subcomponents, and this goes infinitely.[48]
- Any component has a highly composite structure, like the atom as well as each of the subatomic particles.
- The composition could include preexisting natural isotopes and sub-isotopes to be discovered, or numerous new man-made ones to be integrated into the profound inner causal edifice of matter.
- Theoretically, we can implement micro-isotopes in any subcomponent.
- Any micro/Nano isotope will diverge the structure of matter.
- This divergence means as well the conversion of an element into other ones as the conversion of

[48] Even though there are doubts and question on how one can scientifically prove the existence of these substructures, we pretend that the history of science is showing the way. For instance, right now the controversial ideas are abundant for denying or approving of the probability of the existence of any substructure for quarks and leptons. We are familiar with this kind of doubts and controversies in the history of science; each time a new discovery came to solve the issue by opening the new horizons where we get acquaintance of the new stuffs of the universal matter. Such a process is endless as long as the human being survives.

any sub-element into other sub-elements [Or new ones].

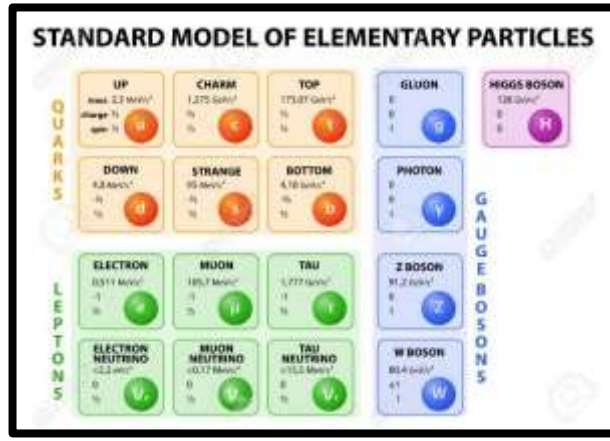
Furthermore, with new discoveries of the inner fabric of each sub-particle, we would have additional compounds to work with for our future desired guided modifications. We don't know how many and what kinds of sub-particles we'll find in each of these subatomic components, but we suspect there will be innumerable rows of smaller particles if we have the right vision, knowledge, and equipment. There would be no end to gradually discovering some smaller sub-particles. It's simply a matter of time and our scientific and technological prowess.

Each operational alteration may release a new type of material, which, when joined with others, may produce an infinite number of elements and sub-elements. A conglomeration of micro-isotopic activities might cause a multitude of new materials and opportunities.

We have certain sub-components in the list below that are expected to include multiple strata of smaller components. We should consider a specialized structure with specified functions for each of them.

When we modify the structure, the functions change as well, and we find ourselves in a new dynamic arrangement. The mechanism by which we change this structure is similar to the preceding suggestion: by examining the succeeding smaller levels, we will uncover new components capable of being altered using micro-isotopes or any other relevant technical ways.

As a result, based on the known particles of matter in the Standard Model as far, we may suggest the following hypothetical micro-isotopes:[49]



- *Quark isotopes through*
  - *Up quarks* alterations
  - *Down quarks* alterations
  - *Charm quarks* alterations
  - *Strange quarks* alterations

[49] Source: earthsky.org

- *Top quarks* alterations
- *Bottom quarks* alterations

- *Leptons isotopes through*
  - *Electron Leptons* alterations
  - *Electron neutrino Leptons* alterations
  - *Muon Leptons* alterations
  - *Muon neutrino Leptons* alterations
  - *Tau Leptons* alterations
  - *Tau neutrino Leptons* alterations
- Quark Substructure isotopes through
  - The inner fabric of *Up quarks* alterations
  - The inner fabric of *Down quarks* alterations
  - The inner fabric of *Charm quarks* alterations
  - The inner fabric of *Strange quarks* alterations
  - The inner fabric of *Top quarks* alterations
  - The inner fabric of *Bottom quarks* alterations

- *Leptons Substructure isotopes through*
  - The inner fabric of *Electron Leptons* alterations
  - The inner fabric of *Neutrino Leptons* alterations
  - The inner fabric of *Muon Leptons* alterations
  - The inner fabric of *Muon neutrino Leptons* alterations
  - The inner fabric of *Tau Leptons* alterations
  - The inner fabric of *Tau neutrino Leptons* alterations

As there are interconnections between each particle with its:

- same level of particles,
- upper-level particles, and
- innermost particles,

each alteration will engender chain-like fluctuations in all related levels as well.

In this way, the number of potential isotopic changes among only the known sub-particles of the Standard Model would be 12!

n! =?

n! = 12!

12! = 4.790016 E+8

12! = 479.001.600

So far, there would be over 479 million potential possibilities for *isotopic-alike interventions*, of which we are practically dealing with just a tiny fraction. How many exactly?

We know that:

> "There are two main types of isotopes: stable and unstable (radioactive). There are 254 known stable isotopes. All artificial (lab-made) isotopes are unstable and therefore radioactive; scientists call them radioisotopes. Some elements can only exist in an unstable form (for example, uranium)." [50]

This number (254) represents almost 0 (5E-05) compared to all potential alternatives available, calculated above (4.790016 E+8). But how we can

[50] Source: energy.gov/science/doe-explainsisotopes

imply more isotopic innovations? The answer will be depending on:

- the level of our knowledge,
- the level of our technology.

These two factors, together with a philosophical perspective that heralds an infinite number of isotopic possibilities, will decide how much of the countless potentials of isotopes and radioisotopes we can effectively execute at any given time.

We must not forget that we have received a fatalistic approach that describes these particles as "elementary," "indivisible," or "smallest." To counteract this infertile 'scientific' resignation, we adopt a third element, a purposely infinitist philosophical approach, besides knowledge and technology. In order to explore all of the isotopic and sub-isotopic prospects that exist in the universe, we must adopt a worldview that is free of any enclosing attitude or any limiting view.

Infinitism allows us to assume an infinite number of sub-particles working in an endless number of levels,

thus we never say things like "indivisible," "smallest," or "elementary."

What we call "fundamental particles" compose and operate everything in our known universe, but what shapes them is the infinite number of interconnections between their constitutive components, and we know that these constitutive components are nothing more than the micro-interconnections of their subcomponents; this internal causative course is an open-ended process. Then we're talking about bottomless and never-ending causal chains, either towards the microcosms or towards the macrocosms.

*

Conclusion

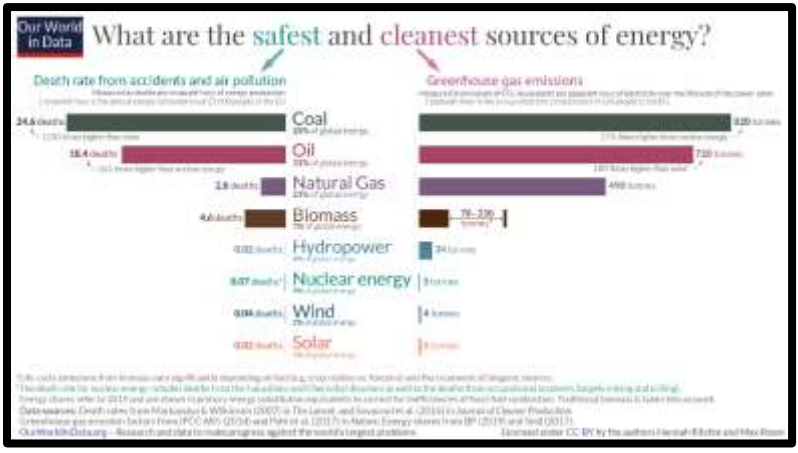
Matter turns out to be infinite; so is its capacity to be reformed. The purposeful alterations in the edifice of matter could change it into uncountable novel forms and substance. Therefore, instead of striving to get the needed materials by producing them mechanically, costly, and roughly, in an archaic accustomed mode, we could operate with originality, subtly, intelligently, and in a really modern way. How? By focusing on acting at the micro-levels of the structure of matter in order to attain whatever we want more adequately, properly, and at a better cost.

The hypothesis of Infinitism is:

> *The subtler is the structural echelon in which we produce the materials, the more beneficial will be the production process and the quantity of obtained products.*

While we are using atomic energy from the middle of the twentieth century, we continue extracting and burning the same coal that the cave dwellers got used to burning thousands of years ago. A kind of historical

DNA is engraved and survived within humanity's major modes of production.[51]



The reason for which we did not develop enough is not due to any unsolvable material, scientific or technological difficulties, but before anything else, because of a lack of vision. We don't believe yet firmly that 1) the matter is infinite, 2) the infinite could be operated, and, 3) this operation can supply everything and as much as we want.

'Scarcity' is an ancient fearful abstraction that dominated our relations with the world, while that abundance was the neglected actuality of matter. Our misapprehension of the material universe concealed

[51]Source: ourworldindata.org/safest-sources-of-energy

the immense capacity of the world with which we are dealing.

We got stocked at a macro-level productive technicality, while the micro-level and Nano-sphere are where we could have operated and attain a profusion of resources. In order to move in this direction, we need to establish a 'worldview' that can design and project such a perspective to channel science and technology toward the micro-engineering of the fabric of matter.

Infinitism attempts to represent such a philosophical worldview by revealing that "*everything is infinite or is not*". By incorporating infinitude, as a precondition of its existence, Infinitism suggests the presence of unlimited spheres within the structure of every single phenomenon, whatsoever.

Accordingly, all Elements, Molecules, Atoms, Particles, and Sub-particles are structurally unconstrained. There is never an end to the number of the constitutive set-ups of any phenomena. *The finite doesn't exist materially, only exists the infinite*.

Through Infinitylogy, we try to underpin the conceptual foundations of this philosophical theory in order to see

how the objectivity of its central claim could be tested. This book is a complement to the previous one on Infinitylogy.[52] Here we went over the structure of matter to see by what method to detect the presence of infinitude.

For centuries, we dodged serious scrutiny over *Infinity* because we thought that such an endless reality could not be treated nor understood as it should. Aristotle believed that actual infinity was impossible. Such an evading attitude had been, to some extent, justified by our earliest weakness of knowledge and lack of appropriate tools; nevertheless, at this day and age, with the coming climate change and global warming catastrophes, we should have an acute awareness over this missing vital piece of our very deficient human history's puzzle. That's why we should not ignore this topic of infinity anymore; on the contrary, we must take care of this theme of infiniteness as determined as possible and thrive deepening it. This is what our efforts to establish Infinitylogy, as an organized discipline, would intend to accomplish with the

52

purpose that we acquire the necessary means to operate and use the infinitude of matter.

What we are looking for is just one thing: removing the quixotic blockade from our collective mindset so that we could see the infinitude of the universe and its endless inner capacities offered to all intelligent creatures in the universe, including the human beings on the earth.

*

In this book, once again, we wanted to return to what we already explained in two other books, [53]and all could be summarized as follows:

- Infinitism pretends that humankind could rebuild a new world through exploration of the endless abundance in the inner material structures.

[53] ERFANI, Korosh; Infinitylogy (Foundations of a new discipline), ILCP Publishing House, 2021, 148 pages.
ERFANI, Korosh; Infinitism (How to make Infinity your philosophy for life), ILCP Publishing House, 2021, 374 pages.

- Infinitylogy elaborates on the following hypothesis regarding this idea of "endless abundance of material resources":

> *As the history of science shows, the more we learn and discover about the details of the structure of matter, the more we become able to operate for getting additional products.*
>
> *So, we could guess that, with a snowballing trend of knowledge and tools, we would reach a point where our operational capacity enables us to produce everything we need and as much as we need; changing in this way, our interactions with the matter.* [54]

Infinitism, then, is based on Infinitylogy, which formulates the systematic methodology for exploration of the matter's infinite structure:

[54] Up to know we used the subatomic manipulations for getting a higher diversity of elements, while we could think of a microtechnology that is also able to reproducing an element. The repetition of a process should be a way to reproduce a product as much as we want.

Micro-structure-logy

+

Macro-structure-logy

=

Infinite-Structure-logy

In this book, we developed some points about the micro-structure-logy of matter. For that, we went through the components of the material substance (*Elements*, *Molecules*, *Atoms*, *Protons*, *Neutrons*, *Electrons*, *Quarks …)* and tried to see how these interlinked sub-constituents of matter act in an infinite structuring setting. The goal is to see if we have the necessary premises for confirmation of the above supposition, according to which some planned alterations in some sub-echelons of the structure of matter could transform it into any targeted material.

We saw that what is called “elementary particles” in science is usually defined as such:

> “Any of various fundamental subatomic particles, including those that are the smallest and most basic

> constituents of matter (leptons and quarks) or are combinations of these (hadrons, which consist of quarks), and those that transmit one of the four fundamental interactions in nature (gravitational, electromagnetic, strong, and weak)."

We said that our theory tends to refute the "elementary" character of these subatomic particles; the latter are everything but 'elementary'. Such a thing actually doesn't exist, since each particle is itself a container of countless sub-particles; and it's the same for each sub-particle, and it keeps going. We emphasized that the small*est* doesn't exist, but only infinitely small*er*.

By this alternative approach, where there are infinite objects in the matter, there are logically infinite opportunities as well. If we acquire knowledge and technology to interpose on the countless ranks of the substance of the matter, we can get away, once for all, from the idea and the impacts of '*scarcity*'. A new world would then be born. A world in which we start a new mode of production that is fundamentally and technically different from what we were busy doing for centuries.

By coalescing purposefully all existing Elements, [and the new ones], with their endless particles and sub-particles, we could create infinite combinations, and then, we would redo the world, recreate the universe, and reborn humanity. We could be a different kind of God for ourselves with the plan, design, and intention of creating -this time- a perfect world where the discrepancy between *Choice* and *Necessity* vanishes, and we can do what we want without being impeded by any drawback. A world in which, on the contrary to what we have got up to now, nobody will suffer anymore.

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Source of image: listverse.com

Annex

Speculative Philosophy as a source of inspiration for Infinitism

The underpinning philosophical methodology of the theory of *Infinitism* was inspired originally by the *Speculative Philosophy* as defined by *Alfred North Whitehead* in his major work "*Process and Reality*".[55] In that book, he states that "*Speculative Philosophy is the endeavor to frame a coherent, logical, necessary system of general ideas in terms of which every element of our experience can be interpreted*.[56] This was a significant source of inspiration for a work that later became the first version of *Infinitism*.[57] Nevertheless, our work doesn't claim having followed what *Whitehead* suggested in his huge theoretical construction. But we were enthused by his methodological standards, at least partly.

[55] Whitehead, Alfred North, *Process and Reality*, (Edited by David Ray Griffin and David W. Sherburne), The Free Press, New York, 1978.
[56] Ibid. p.3.
[57] *Infinitism: How to make infinity your philosophy for life*, ILCP Publishing House, 2021, 374 pages.

In fact, all along with the construction of *Infinitism*, our chief concern had been to produce the foundations of a worldview that could contain an internal conceptual coherency for the structuring arguments of this theory. We wanted to follow a tide logical order and keep producing an analytical system based on the human experience's understanding.

Whitehead wanted that his work keeps some qualities, among them, he says, "*it is the ideal of speculative philosophy that its fundamental notions shall not seem capable of abstraction from each other*.[58] In order to maintain this essential quality of the speculative philosophy, we elaborated an intertwined conceptual system where the facts of various categories of the existence line up, join naturally each other, and avoid, as much as normal it could look, any arbitrary separating abstraction. It was crucial to us that this interconnectedness seems, as well conceptually as scientifically, justified and able to expose themselves so tangibly that we don't need to invent them but rather to discover them in an obvious and verifiable course.

[58] *Process and Reality,* p.3.

A. Whitehead is very adamant on this point that the speculative philosophy doesn't leave any chance to somewhat phenomenon to distinguish itself through such an abstraction that one could not challenge it by bringing some ties out between that phenomenon and other entities in the real world. He says: "*...it is presupposed that no entity can be conceived in complete abstraction from the system of the universe, and that is the business of the speculative philosophy to exhibit this truth.*"[59]

There is a vast amount of philosophical literature in human history. However, the majority of them did not use this speculative philosophy method, since incorporating its basic required standards in a philosophical work is quite difficult. One of the most though issues of speculative philosophy to be applied and developed by philosophers was most likely the difficulty in constructing numerous integrative concepts as a clear and coherent system. Daring to propose an explicative scheme that might include, on the one hand, the most universal qualities of

[59] Process and Reality, p.3

phenomena and, on the other, a relevant intrinsic setting that ensures a rational relational setting, on the specific exertions, had not been an easy challenge for thinkers and philosophers. How to connect conceptual realities in a systematic scheme of interpretation that consistently and pertinently takes into consideration the operational and inter-relational features of its subject? Our challenge in developing the theory of Infinitism was to ensure that this inner-relational logical structure was as comprehensive as workable.

However, in the context of speculative philosophy, this duty appears to be an unquestionable must, as it should not exclude any aspect of human experience or epistemological discernment. "...the philosophic theory should be 'essential' in the sense of bearing in itself its own warrant of universality throughout all experience, provided that we restrict ourselves to that which communicates with direct substance of actuality," Whitehead states. However, what does not communicate is unknowable, and the unknown is unknowable.

How could such a sensitive and risky fictitious assignment take place when it comes to objective fact-

checking? "The idea of necessity in universality indicates that there is an essence to the universe that forbids relationships beyond itself as a breach of its reason," Whitehead explains. That essence is sought by speculative philosophy.

As a result, when we began to develop the theory of Infinitism, we focused on the fact that anything beyond the clear and factual connectivity between the material bits of stuff would be simple speculation, which is not an espoused part of the methodical scrutiny of speculative philosophy. We sought to avoid supposing the presence of any relationship beyond seeing indisputably the occurrence of an investigated event in its causal chain, where there would be a logical set of interrelations throughout that effort. We highlighted this methodological prudence when we sought to expound on the concept of infinity and its enormous real-world ramifications.

However, we depart from Whitehead's point of few when we construct the central concept of the theory of Infinitism; infinity, its definition, and the way it implies the comprehensive and limitless interactions

were founded on the idea that all far-reaching continuous causal chains, far beyond our immediate experience, are, to be sure, "unknown," as Whitehead says, but not necessarily "unknowable." Scilicet, the infinite interconnectedness of chains of events beyond what we can witness, verify, and experience in the present may be unknown, but it is not unknowable. Every cause-and-effect duo extends as far as our knowledge and tools allow us to touch it materially and conceive of it theoretically through abstraction; in the context of Infinitism, the latter must be verified experimentally later while we maintain steadfastly the conceptual coherency of our philosophical explanation. And it is in order to complete this explanatory mission that we are attempting to build Infinitylogy as a well-organized discipline.

The structure of the material cosmos is disclosed by the demonstrated endlessness of matter as the essential quality of its inner causal chains, and we may then believe in infinity as a true process that makes existence concrete. This is the field of study of Infinitylogy: a discipline that seeks to avoid the rigid

boundaries that exist between philosophy, science, and technology.

Whitehead is absolutely preoccupied with avoiding abstraction and imagination if they feel liberated from the necessity of experimental objectivity. As a result, he claims, "The explanation of immediate experience is the sole reason for any thinking, and the beginning point for thought is the analytic components of this experience." Similarly, we used the structural deconstruction of each fact as the starting point for our study, followed by a look at the interconnectedness of the recognizable components, sub-components, and so on. The single extra characteristic of this approach to speculative philosophy in Infinitism is that we see and project the material reality's structure as indefinitely decomposable, consisting of endless interconnected parts.

Thus, in our work, the methodological process goes on in an order that could be described as follows:

1) Breaking the phenomenon down at a first level in order to identify the immediate components.

2) Establishing the interconnection between the identified components at that level.
3) Continuing the breaking down, for at least one of these above first level's components in order to identify [some of] its subcomponents.
4) Detecting some interconnections between these found subcomponents.
5) Repeating the same process for one of these subcomponents.
6) Keep going through the above stage as much as necessary, while looking for the obviousness of the endless causal chains that compose the studied phenomenon.

So, in order to follow the methodological recommendations of the speculative philosophy, one should think from the beginning about the generalizable character of its analytical system in such a way that could comfort its inclusiveness. That's why maintaining the universality in such a theoretical construction is a prerequisite condition.

How we are proceeding with it?

Universality of infinitude

The starting point from which we could withdraw the *universality* of our analytical system is the factual human experience. *Whitehead* insists that: "*In the first place, this construction must have its origin in the generalization of particular factors discerned in particular topics of human interests.*[60] The useful aspect of this method is in the applicability of the results in the fields that go beyond the strict turf in which we started our philosophical speculation. From applying this analytical method to a limited group of concrete facts to the generic broad notions that comprise the universe.

This progressive generalization needs a strong coherence in its course of construction. *Whitehead* formulates this development as follows: "*The coherence, which the system seeks to preserve, is the discovery that the process of any one actual entity involves the other actual entities among its components. In this way, the obvious solidarity of the world receives its explanation.*[61] This is the grounding ideas for *universal solidarity* that is going to become, in the

[60] *Process and Reality*, p.5
[61] Ibid, p.7

theory of *Infinitism* and also in its wide-ranging applications, the most comprehensive notion that the human mind would be able to conceive; such a claim accounts for the concept of *Universal Solidarity* includes all the past, present and future fluctuations of the matter in the universe in its evolving existential context. Let's explain it with reference to its possible mechanisms, which we developed as well in the presentation of *Infinitism* as in the construction of *Infinitylogy*.

Universal Solidarity

The projection of the *Universal Solidarity* could be in this way: It's a mechanism by which the entire interconnectedness of all phenomena happens. This means that every movement or change in a given component -whatever are its location, its size, and its complexity- triggers an all-embracing coalescence. Every change in a phenomenon engenders a chain of alterations at two levels: in other phenomena that are external but related to it, and also in its own sub-components. So, any modification is causing a chain of events.

As we do put aside the possibility of any total isolation or absolute abstraction of a phenomenon, whatsoever, we could imagine that a change will never let its related components or its own subcomponents totally intact. This certainty of contagion explains the meaning of coalescence and concrescence, which reflect Universal Solidarity. This latter is therefore the interconnection of the universe's parts as an innately interwoven infinity. And what's remarkable is that each change feeds and activates Universal Solidarity indefinitely. The coalescence is, therefore, universal and all-encompassing. Change is ubiquitous, no matter what it is, where it occurs, or how large or little it is, in microcosms or macrocosms. As a result, the causal linkages get mechanically and accidentally linked, forming what we term general connectedness or Universal solidarity.

The latter idea has the complete potential of generalization that combines material existence in its most comprehensive sense possible for the human mind or, why not, for any other non-human intelligence that attempts to conceptualize the Existence through and beyond the known universe. By extending the logic of

Universal Solidarity, we might see the universe - whatever extension our minds can imagine - as a knotted entity of all its components, which may be simply one component of a larger entity that we term, for the purpose of differentiation, the ultra-universe. This latter would thus be consisting of an infinite number of components, of which our universe and maybe comparable ones would be merely a few pieces and nothing more.

In other words, we could have an infinite number of universes, like the one that we know, intertwined to each other that shape a mega-entity – or whatever we name it- that is itself just a minuscule component of the infinite number of subcomponents of a bigger entity and this lineage keeps going interminably. It's imaginable that this kind of development goes as well in microcosms as in macrocosm in an indefinite course. Whereby a deep projection of *infinity*; and paradoxically, this projection itself will get a ceaselessly new definition with time and this will never stop.[62] There is no ultimate definition nor a final

[62] This concept of *Universal Solidarity*- the fact that any change modifies all- gives us an idea of the impossibility of any scenario in which it's a question of 'reincarnation' of our current status, since such a surviving presupposition is

conception of *infinity*. They evolve along with events, science, philosophy, and reflection.

This was also the reason which we are publishing this set of works, while totally aware of many imperfections in its content; we are willing just to provide a framework for its function: A useful theory that could change our ancestral relationship with the universe and the matter.

Nevertheless, it's always hard to express verbally what is going on far beyond the immediate experience since it requires an extended abstraction while we care not losing our touch to the factuality.

On the expression

We know that our major tool to treat *infinity*, despite its intangible nature, is language. But some could suggest, besides the language, mathematics, as a tool of

completely against the fact that, at any instant, we are the product of an infinite numbers of changes in the universe and also the fact that we are changing it by any of our actions as well, instantly and permanently. There is no way that the whole universe could reverse all the changes it underwent to give birth to a Preexisting reality that had already been vastly altered. Whereby the obvious refusal of any idea of 'time reversal', 'time travel' or 'back to the past'; the time transferring could not be but a fantasy of science fiction since time itself is not but a human mind's invention and quite strange to the matter's inner unstoppable processing reality.

expression of complexity. We admit mathematics is capable, somehow, to express *infinitude*. Actually, in the theory of Infinitism, our major reference to infinity is tied to this mathematical depiction of being uncountable foremost. Nonetheless, there are two reasons for us to avoid using mathematics as the central tool of the infinity's account: first, an expressive and descriptive need of the conceptual representation of the processes that go beyond the basic numbering of the facts. Second, we provide a critical appraisal of the essence of classic mathematics as we know it. We believe that the basics of standard mathematics are incapable of conveying the all-encompassing trajectory of the continual changes that occur concurrently at the macro and micro levels. Could it be done using 'dynamic mathematics'? Let us think about this!

Concerning mathematics

Then, there are two kinds of mathematics: static mathematics and dynamic mathematics. The first does not represent the developing character of the phenomena that it quantitatively depicts, whereas

dynamic mathematics is designed to incorporate this constant change in the facts.

As *Aristotle* said: *... the infinite is potential, never actual; the number of the parts that can be taken always surpasses any assigned number."*[63] This quote reflects the view that dominates static mathematics since then. This is true that *static mathematics* is naturally a part of *dynamic mathematics* with regarding the finite reality we can deal with. The reality in question is a presupposed stationary status of a changing actuality; a frozen image of an ongoing process. The infinitude is supposed to be always potential as we cannot touch it in an actual fact. Meanwhile, we know that, according to our view of *Universal Solidarity*, a change stops nowhere, nor ends somewhere to be treated as a catchable and apprehensible finite stationary. The chain of events is just non-stop, whatever is the space-time in which we consider and observe this fluctuating reality.

The static mathematics represents the part of the infinite reality we halt momentarily and artificially for

[63] Source: logicmuseum.com/cantor/Phil-Infinity.htm

the sake of adjusting its evolving nature to our limited senses of apprehension and to deal with. On the opposite point, dynamic mathematics should treat the potential within an ongoing process that doesn't follow any specific man-made space-time conception; static mathematics deals with the real values that are the artificially circumscribed quantification of a never-ending changing occurrence.

Each formulation or equation of dynamic mathematics would naturally include the unbroken infinite amounts of the stationary formulas used by static mathematics. This latter intends to be functional and practical but is also limited and limiting, while the dynamic mathematics is , at least at first, largely theoretical and conceptual but unlimited, active and liberating the objective facts from their freeze subjective representations.

As it's obvious that nothing could materially integrate *infinity*, the dynamic mathematics will represent no ended values of reality as we could treat and touch it; but it relates it to the universe of changes, possibilities, and connections in the frame of a complex and endless evolving development. Dynamic mathematics includes

the interminable alterations of phenomena. This is what we could call the mathematics of "becoming" instead of the mathematics of "being". The utility of dynamic mathematics could then be how to show the infinitude, acting within the occurrences and in their interrelations. It is the conceptual framework of *infinity* as defined in *Infinitism*: the endless causal chain(s).

The methodological particularity of *Infinitism* is that the general principles could show themselves at any level and in any particular portion of a level. That's why the entirety of our analytical scheme, founded on the concept of *infinity,* reveals all its capacity once we consider it in a general context as *Whitehead* states it: "*The verification of rationalistic scheme is to be sought in its general process, and not in a peculiar certainty, or initial clarity, of its first principles"*.[64] That's why in *Infinitism*, it's explained that all the categories of existence follow the same principles of *infinitude*; and this assertion results from the process in which we went through all the major categorical levels (man,

[64] *Process and Reality*, p.8

society, nature, world, universe, and existence), and checked if a sameness of the infiniteness' codes could be observed there or not. This claim doesn't mean that the modality of the actual process of infinity could not vary from here to there; it just means that *infinitude* is operating anywhere according to the same rules that are a transmission of changes between structure(s) and component(s) that intercreate each other endlessly; this general rule could be theoretically ubiquitous in the whole universe.

In the theory of *Infinitism,* the arbitrary character of the suggested categorization of things (man, society, nature, world, universe, matter, and existence), is obvious, and we are aware of that. Yet, we know that, as *Whitehead* states it, "*Metaphysical categories are not dogmatic statements of the obvious; they are tentative formulations of the ultimate generalities*.[65] In the case of our study, by proposing the categories of Man, Society, Nature, World, Universe, and Existence, we knew that we are alluding to a subjective classification that could have been differently formulated by adding much more categories, or quite less. The reason for

[65] Ibid.

which we rely on this classification is that each of these specific categories, quantitatively and qualitatively different, obey the same rules as others, giving birth to the sameness of the “ultimate generalities”.

In other words, we observed that the generalities found in the category of Man are the same as those found in the categories of Society, Nature, World, Universe, Matter, and finally, Existence. This latter, as a mental actuality, encompasses all the other categories. When we look for infinitude in the human body, human mind, social relations, natural ecosystem, planets around us, stars, galaxies, and beyond, we find the same general rules of infinitude governing, based on the same universal principles, and this sameness guarantees us the same ultimate conclusions at all levels and for each of these categories. As a result, in terms of infinity, as described in Infinitism, all forms of existence follow the same fundamental principles, but with endless variations in their modalities.

This sameness has no resemblance to absolutism in any way. In reality, by permitting and including infinite development into our definition and perception of

infinity, we open the door to limitless amendments. That is why the universality of the principles of infinite, as shown in all phenomena and levels, refuses to claim to represent any so-called 'final version' of infinity. Far from it! As previously said, the interpretations of infinity are unlimited, and our understanding of it will always evolve via innovation and discoveries. "Rationalism is an adventure in the clarity of mind, ongoing and never definitive," says Whitehead. This consciousness of the never-ending evolving normality of the analysis that we develop about infinity will leave the window open to any additional hint that could marry, pertinently, our analytical endeavor, without this latter being utterly discredited.

At present, with this precaution and a justified modesty, inserted in the theory of *Infinitism*, we clarify that the correlation among the categorical entities we talk about obeys the rules that will be more or less similar in any level. It should be no exception in the sameness of the general principles of *infinitude*, at micro or macro echelons of the universe, if our formula of *infinity* intends to be pertinent and applicable as a universality.

Since we project *infinity* as the endless interconnectedness of the causal chains, it could not be any amendment to this definition if we go down or up in the scales of levels or within our suggested categories. This is the point that *Whitehead* formulated like this: "*All general truths condition each other; and the limits of their application cannot be adequately defined apart from the correlation by yet wider generalities*."[66] So, as we could see, the methodology of knowing an infinite could not make an exception to the infinitude. Any knowledge that wants to include a specific generality in the universe should be able to be in touch with a bigger generality through its interconnections with this latter. This means that we should not find any exception in what is said for the general rules of elaborating the interrelations between infinite generalities. Whitehead says: "*The determination of this status [of the notions in respect to each other] requires a generality transcending any special subject-matter [as the object of the specific field of sciences]*".[67]

[66] *Process and Reality*, p.10
[67] Ibid.

The conceptual and factual non-limitedness of the mechanisms described for a level or a category in the theory of *Infinitism* is the warranty of its universality, far beyond the limitedness of the peculiar facts, here and there, at that level. In *Infinitism*, we try to demonstrate the facts and not only state them. Our departure from the factual entity and finding the infinite process of changes in them are built progressively. But the interesting point is to see how the infinite aspect reveals itself in a definite entity – i.e. in a finite [thing]. The logic behind this process is that any finite finds itself in a bigger entity that plays the role of its universe or its existential context. Here we find the full meaning of what *Whitehead* says when he formulates: "*...every definite entity requires a systematic universe to supply its requisite status*."[68] Any finite is translated in the infinite.

This shows that understanding of *infinity* could not refer to the facts without their evolving sphere or their interconnectivity. This is to say that the relational context of an object cannot be omitted for the sake of technicality. If so, we could hope to generate a full

[68] *Process and Reality*, p.11

awareness of the infinite fabric of a phenomenon. As Whitehead says: "*There are no self-sustained facts, floating in nonentity*".[69] The materializing context of everything should be objectively and accurately acknowledged so that we could see not only the multiple interconnectednesses but also the endlessness of this latter. Any mistake in determining this context could risk putting us in front of a limited number of relations that don't reveal the *infinite* character of a causal chain of interconnectedness. *Whitehead* says it too: "*...every occurrence presupposes some systematic type of environment*."[70]

This "environment" is also where the objectivity of our approach becomes critical since an unbiased explanation of uncountable relatedness is required. Thus, as *Whitehead* says, "when the description fails to embrace the practice, the metaphysics is insufficient and requires revision." This methodological and technical precaution may be valuable for the objective methodology of Infinitism, as well as for avoiding any form of fictitious metaphysics, because, as Whitehead

[69] Ibid
[70] *Process and Reality*, p.12

stated, "metaphysics is nothing but the descriptions of generalities that apply to all the details of experience."

More protective tools

Additional precautions are also required when it comes to the only tool we have for formulating all the points about infinity and its existence in every language.

According to Ludwig Wittgenstein, "the boundaries of my language indicate the limits of my universe." How could we possibly express an unlimited notion, such as infinity, using a substantially limited tool as language? We should be conscious of all the gaps and flaws in our verbal statements because, as Whitehead says, "no verbal statement is an acceptable articulation of a notion." This dynamic and persistent consciousness of the scarce nature of language causes us to pay close attention to, first, how to structure a statement and, second, how to think about the ontological aspect of things, regardless of how we pronounce their status verbally.

But, aside from paying close attention to the expressive aspect, another approach to ensure the objectivity of our speculative philosophy is to consider and treat the

facts 'systematically.' According to Whitehead, "there are no bare, self-contained things of reality, capable of understanding apart from interpretation as an element in a system." Infinitism attempts to mitigate this risk by recognizing that interpreting a phenomenon is a component of the latter. Here we have an analytical system in which both the object and the subject are engaged in dynamic and conscious interaction. As a result, this latter becomes a part of the structure of the examined phenomena on the one hand, and a component of the interpretation on the other.

By considering every single phenomenon as a system that will carry our subjectivity in itself, and our view that conveys the influence of the objectivity of that phenomenon, we implement the universal principle of interconnectedness in our perception of realities as well. In this way, as a methodological safeguard in our unavoidable epistemological anthropocentrism, *Infinitism* states that when it comes to the human mind's interference, *each reality bears its interpretation as well*.

The obvious character of this approach in a study grounded on speculative philosophy should be maintained by implementing this standard, formulated by *Whitehead*: "*The understanding of the immediate brute fact requires its metaphysical interpretation as an item in a world with some systematic relation to it*".[71] Nowhere, one could find a fact that could isolate itself in such a way that a systematic relation with other elements could not be found; these elements include our 'metaphysical interpretation' on top.[72]

The best way to avoid damaging and deceiving subjectivism is to refer to our own experience when this latter should be seen at its deserved place. *Whitehead* says, "*... an experiencing subject is one occasion of sensitive reaction to an actual world*.[73] By the generalization of the above view on the systematic relatedness of everything, we could easily understand that our experience is, after all, a fact that is included

[71] Ibid, p.15

[72] We are surely attentive here about the conceptual and material limitations of the human being's apprehension to discover the complexity of reality. However, we clarify that there is no any absolute parameter that could prevent our advances for getting more and more of acquaintance on that.

[73] *Process and Reality*, p.16

in this general rule. Here are the facts that justify this claim:

1) We are a system as a human entity.
2) We are part of a system.
3) The system we are in is itself a part of a system as well, and this keeps going.
4) We are related to all other elements of the system in which we are, and through it, to all other systems and their elements.

No science could, for now, produce such a broad view.[74] But as *Whitehead* says:" *The useful function of philosophy is to promote the most general systematization of civilized thought*".[75] So, philosophy is the best conceptual tool that could abstract methodically and objectively the limits of the immediate experience -as the main subject of the science- and open a new horizon where we could see the beyond-experience facts and their potential.[76] This is what *Whitehead* formulates: *"By providing the*

[74] The writer is trying to establish a new discipline called *Infinitylogy* in order to see if we could get all this kind of items and discussions formulated in a systematic and methodological way or not. To know more, refer to this website: www.infinitylogy.com

[75] Ibid, p.16

[76] The beyond-experience fact here does not mean at all a non-material fact.

generic notions, philosophy should make it easier to conceive the infinite variety of specific instances which rest unrealized in the womb of nature.[77] In *Infinitism,* we do integrate these "unrealized" instances as the potentially endless possibilities of interconnections between the components of an entity, whatsoever. These endless potential opportunities are indeed the material actualization of *infinity*, as a conceptual reality. The term *infinity* takes all its meaning when we know that in the interconnectedness of elements reside the endless potential connections -some visible and some yet invisible- that need just the necessary conditions either to be realized or to be known.

At this stage, based on this explanation of the methodological aspect of *Infinitism* the reader could see that behind the theory that is developing progressively through the multiple publications, there are these principles of the Speculative Philosophy applied in our descriptions, formulations, and statements.

To conclude, whatever are the limitations of our theory of *Infinitism*, we at least try to follow consistent rationality in our arguments with the aim of supplying

[77] Ibid, p.16

a more or less tangible understanding of *infinity* and its implications.

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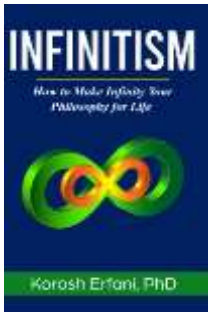
The finite is an invention,

the infinite is discovery.

Don’t let an invention deprive us of all the never-ending potential discoveries.

Books of the writer on

Infinitism and *Infinitylogy*



● ***Infinitism: How to make Infinity your philosophy for life***, ILCP Publishing House, 2021, 375 pages.

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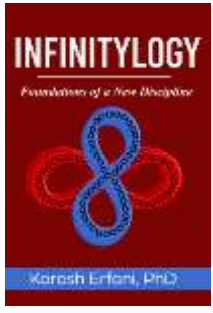

● **Infinitylogy: Foundations of a New Discipline**, ILCP Publishing House, 2021, 148 pages.

Our Websites

- **Website on the philosophical theory of *Infinitism* and its applications.**

www.infinitism.info

- **Website on *Infinitylogy* as a new discipline and its establishment:**

www.infinitylogy.com

- **Website on the *Center for Research and Development of Infinitylogy* (CRDI)**

www.thecrdi.com

- **Website of the ILCP Publishing House**

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