

Nature of Existence and Essence of Time in Existence

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ABSTRACT

This study is based on the notion that every entity has two inseparable parts: the imperceptible existence and the perceptible body. Existence is comprised of space, time, and consciousness. These characteristics manifest in the perceptible forms of capability, activity, and awareness, respectively. The findings of this study suggest that physically (atoms), biologically (vegetation), psychologically (animals), and intellectually living entities (humans) have their own existences in the following elements: space (capability), time (activity), and consciousness (awareness). This study aims to discuss the context of time by visualizing the phenomenon in which the present penetrates the space fabric by touching consciousness and establishing self-sustaining life, termed as an entity. The second part of this study suggests that the negative and positive loops represent the future and the past in a sinusoidal wave, and the base line in between represents the continuous present. A small change occurs with each oscillation or wavelength, which increases entropy. The unit “change” occurs within one wavelength, which should be treated as the smallest unit of time. This unit may differ from the prevalent unit of time, which is measured based on duration.

1. INTRODUCTION

When it comes to the context of “time”, we do not mean the duration in terms of seconds and minutes, but it is an element responsible for activation. This phenomenon can be explained by the theory suggesting that each entity is made of two inseparable parts: an imperceptible existence (governing part) and a perceptible body (governed part). The imperceptible existence is comprised of space, time, and consciousness. We can visualize them in the perceptible forms of capability, activity, and awareness, respectively. No entity can exist if any one of the above is absent. This study focuses on the time or activity component only.

Each entity has its own individual existence, and each existence has its individual time; hence, an individual entity has its time. For each entity, time flows in the form of waves (moving oscillations). These oscillations occur to increase entropy. Entropy creates the future, initiates the flow, and induces “change”

or diversity, which is the basic evidence of time. Kuhn stated that “without that change, we would not have any notion of time” [1, 2]. Each oscillation carries some definite change, which occurs according to its “capability (space)” and is manifested by its “awareness (consciousness)”. The entity perceives this change in the present and remembers it as the past.

It is further suggested that our universe exists on several levels, such as physical, biological, psychological, and intellectual. Entities at each level have their own existences, and each existence has its own capability (space), activity (time), and awareness (consciousness). Moreover, entities demonstrate physical, biological, psychological, and intellectual activities; these activities are quite different but follow the same rule affixed by nature, as explained in section 4.3.

1.1. Historical Aspect of Time

Our historical understanding provides us with different views about time. 1) In a discussion on the philosophy of fatalism, Solomon has stated that “to say that an event is unavoidable is to say that no agent is able to prevent it from occurring” [3]. 2) Plato argued that time is absolute and exists independently of the events that occupy it [4]. 3) However, the topology or structure of time has not yet been fully investigated [5]. 4) In 1908, McTaggart argued that there is no such thing as time and the temporal order of the world is a mere appearance [6]. 5) Aristotle adopted the relational theory of time suggesting that “there is no time without change” [1]. In the early eighteenth century, Leibniz advanced this theory, arguing that spatial relationships are ontologically prior to space and relationships among changes (or events) are ontologically prior to time. Time exists for the purpose of change [7]. 6) The conflicting viewpoints on eternalism, presentism, and no-futurism suggest that “Eternalism is the view that past, present and future entities exist simpliciter, presentism the view that only present entities exist simpliciter, and no-futurism, the view that past and present entities exist simpliciter contrary to future ones” [8]. 7) A metaphysical belief also proposes the idea of “a mind-independent universe in which we all live and to which [their] fundamental theories apply” [9]. 8) Moreover, the moving spotlight theory suggests that “as time passes, new times come into existence” [10]. 9) Newton’s theory of absolute time states that “If it were not for God’s intervention, one might properly think of the future as a logical consequence of the present” [11]. All these theories overlap each other, making it difficult to establish a clear concept of time. Secondly, all these theories are based on physical time only and do not consider the time at activities at the biological, psychological, and intellectual levels [12, 13].

1.2. Organization of the Study

We can see that our historical understanding of time leaves many unanswered questions. Thus, the present study aims to address them at a fundamental. This study will clarify the following issues in detail:

- 1) Cause and origin of existence (Section 3.1.)
- 2) Multilevel universe (Section 3.3.)
- 3) Three elements of existence: space, time, and consciousness (Section 3.4.)
- 4) Difference between entity and existence (Section 4.2.)
- 5) Divisions of activity (the perceptible aspect of time) (Section 5.0.)
- 6) Application of theory to electromagnetic waves (Section 6.0.)
- 7) Concept of a “hollowness” wave and its proof (Section 6.2.)
- 8) Involvement of time in wave motion (Section 6.3.)
- 9) Involvement of time in perception (Section 6.4.)
- 10) Smallest unit of time (Section 7.0.)

2. METHODOLOGY

The universe can be divided into two parts: the imperceptible “cause” and the perceptible “effect”. Existence and its components are imperceptible [14], which is beyond the purview of modern science;

hence, we will draw on ancient philosophies to discuss this. During the origin of an entity, the “cause” is the existence, and the effect is the life of the entity. For biological plants, the imperceptible life in DNA is the existence of a perceptible life in a plant is an entity. We will create a bridge between the imperceptible and the perceptible phenomena. This process explains the origin of a living entity and will automatically explain the origin of activity (time).

We will determine how increasing entropy is responsible for the creation of life. By referring to the Upanishads from Indian philosophy, we will describe the philosophical meaning of entropy and explain how it interacts with the past, present, and future. This study aims to explain the three essential elements of imperceptible existence (space, time, and consciousness) and their perceptible forms, that is, capability, activity, and awareness. This study will then consider the behavior of time in multilevel worlds: intellectual, psychological, biological, and physical activities. All have different behaviors but follow the same rules. The already known rule of one level can be applied to the unknown rules of the other level’s activity.

This study will explain the applicability of the theory to an electromagnetic wave, introducing a new concept of “hollowness” in space fabric.

3. ORIGIN OF EXISTENCE

3.1. Ultimate Cause of Existence

Firstly, the definition of “existence” should not be confused with that of “existing body” or “entity”. Existence is the cause of an entity; hence, it is an elementary and imperceptible aspect of the universe. Newton considered that “space and time to be emanative effects of God and thus dependent”. He further added that “it is like a primary substance in not being dependent on anything except God” [10, 11] and that “space and time are not God, yet still constituted by God’s existence” [15]. To remove the spiritual tone of the statement, we could replace the word “God” with “ultimate cause”. However, the Katha Upanishad states that “God” or “Brahma” is nothing but “existence” [16]. In other words, Newton is talking about existence, whose spiritual name is God, which then resolves the dilemma. Here, the word existence is used for “existence” only, which is comprised of space, time, and consciousness, creating life to the entity.

3.2. Involvement of Entropy

Why did “God” (ultimate existence) create existing bodies? According to the Chāndogya Upaniṣada [17], Brahma said, “I am one, let me become many!” (only philosophical meaning). Modern science implies that entropy wants to increase with multiplication and diversification. In both cases, “existence” (God) seeks multiplication and diversification, as in “Darwin’s theory of evolution”. This phenomenon is evident in many ways. The intellectual brain diversifies knowledge by thinking; the psychological mind multiplies and diversifies emotions; the biological body replaces cells to strengthen the body; physical molecules interact, creating developed molecules, such as DNA; and cosmological energy fields divert themselves to create dark energy causing the universe to expand [18]. However, it is unclear why entropy needs to be increased.

3.3. Multilevel Universe

Existence is also a relative term. Our universe exists on different levels, of which five are known to us. These are the intellectual, psychological, biological, physical, and cosmological worlds from the highest to the lowest. Intellectual existence is the cause of intellectual life (human), psychological existence is the cause of psychological life (animal), biological existence is the cause of biological life (plants), and physical existence is the cause of physical life (matter). The existence of a higher level is created over the systematically arranged substances of the successive lower level. For example, biological existence is created over the systematically arranged substances (DNA) of physical molecules. All successive higher entities are operators to lower entities. Opposite it, all successive lower entities are operated by higher entities. For example,

an intellectual entity creates knowledge by perceiving symbols from psychological entities, and psychological entities express their feelings using the biological body. The lives of all level entities can be explained using a unified formula [19]. The human being incorporates all levels. If the cosmological world were absent, physical life and the physical world could not exist, and all higher entities would be void. When a human biological entity dies, the psychological and intellectual bodies also die (see Figure 1 and Figure 2).

3.4. Elements of Existence: Space, Time, and Consciousness

Solov'ev stated that "Space, time and consciousness are primordial words in our vocabulary and they cannot be defined" [20]. In other words, they are imperceptible and ineffable. The composition of these three elements along with corpus of lower world creates a perceptible entity; no entity can survive in the absence of any one of them.

3.4.1. The Concept of Space

For philosophical purposes, space does not denote place. It is the available capability of an entity to use the space fabric. Space fabric is a structure of symmetrically arranged cosmological energy fields. It facilitates the physical entities to exist and activate. Although the vacuum energy and space fabric denote the same thing, but when we talk about "vacuum energy", we refer to quantum field theory, while space fabric explains the structure of different energy fields arranged symmetrically. These fields are dark matter, dark energy, visibility, and magnetism. According to GR and SR, the space fabric curves in the presence of gravity and relative velocities [21].

Physical space is physical life's "capability" to exist and activate. Two different entities using a common fabric can have different capabilities. These capabilities depend on the existence of the entity. Intelligence is an intellectual capability [22], emotionality is a psychological capability, liveliness is a biological

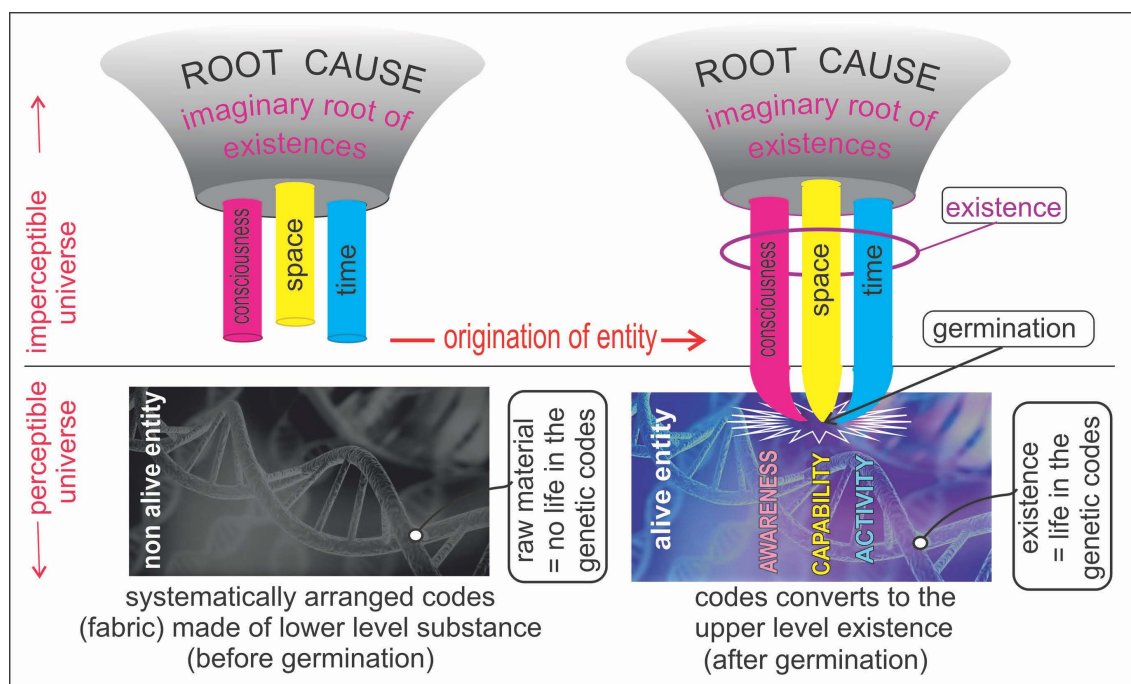


Figure 1. Before origination, a corpus of systematically arranged codes (DNA) existed but had no life. As soon as existence, which is comprised of space, time, and consciousness, accepts the corpus, germination occurs. This process originates the living entity from a non-living corpus.

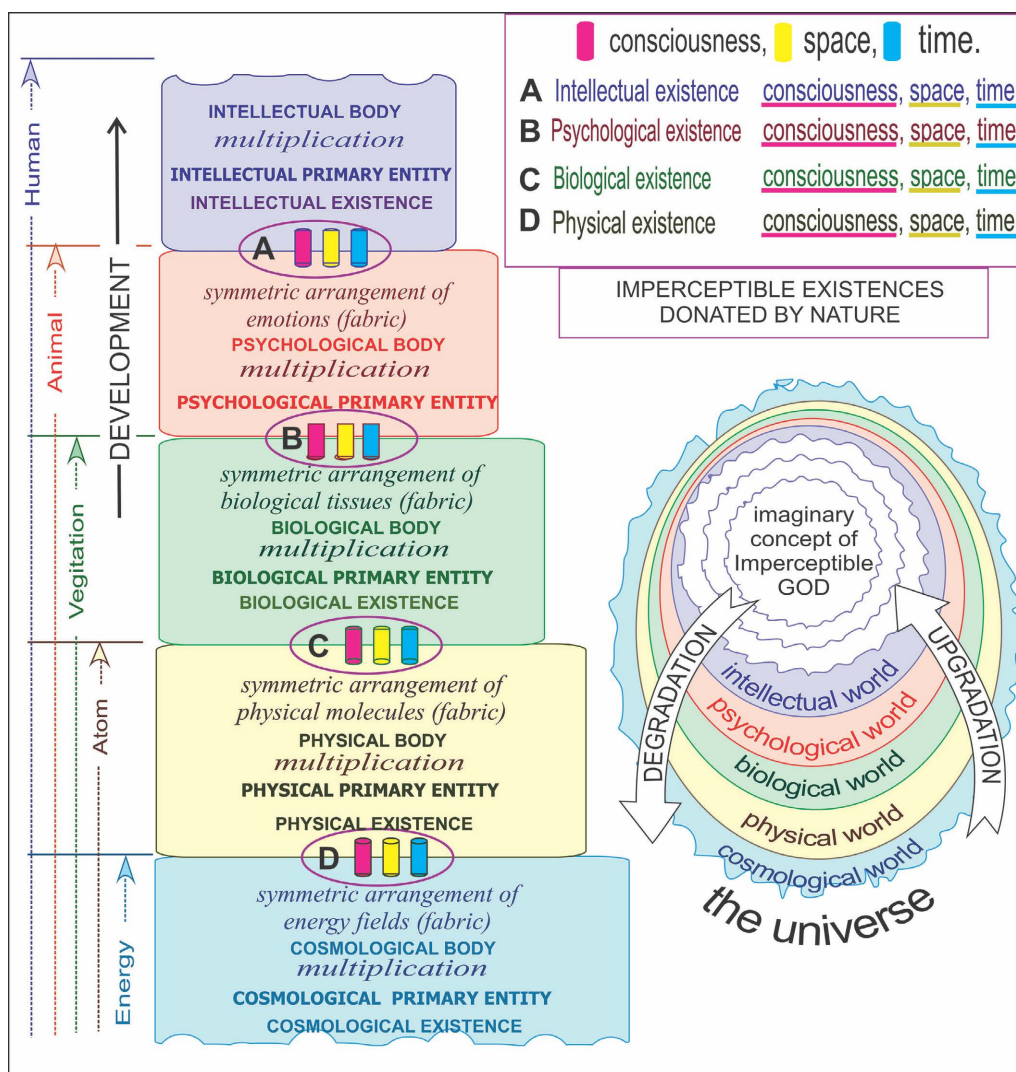


Figure 2. The universe consists of five known levels: cosmological, physical, biological, psychological, and intellectual levels. The substances of the lower level create the corpus for the upper level. The existence of the upper level germinates the corpus and creates upper-level entities.

capability, and activeness is a physical capability. Each human can have different capabilities in different fields. Our physical space has a limited capability and restricts light from moving at speed c in a vacuum. A physical particle can view up to 46.508 billion light-years, which is the available capability (space) for it. In the case of biological entities, a dog has more capability in smelling than a human. A human has no capability of flying. In the case of psychological entities, a deer has more fear than a lion. A dog can be an easily domesticated pet, but the same principle cannot apply to a tiger. In the case of the intellectual world, for most, our thinking capability (space) is less than that of Albert Einstein.

3.4.2. Concept of Time

Entropy needs to be multiplied and diversified. Multiplication requires a flow of life, and life needs capability, activity, and awareness to flow. Activity, which has the capacity to induce change (diversification) or increase entropy, is the perceptible manifestation of an imperceptible time. Activity flows to increase universal entropy and is directed towards the lower energy zone [23]. In the case of electromagnetic

waves, the receiver lies in the lower entropy zone, captures energy from the emitter, which lies in the higher entropy zone, and uses activity to receive energy. Time (activity) uses space (capability) to form the spacetime continuum. Time (activity) uses consciousness (awareness) to satisfy the need for entropy. It can be observed that a verb exists with time (activity) [24]. Therefore, activity is the perceptible aspect of an imperceptible time [25].

3.4.3. Concept of Consciousness

Modern science recognizes the need for consciousness along with space and time [26]. Consciousness is a difficult subject for philosophers. Glattfelder states that “My perceptual consciousness now consists in the existence of a world [...] consciousness is the most fundamental essence of existence” [27]. Honderich has said, “We need some view of perceptual consciousness as existence, or, if you like, existence as perceptual consciousness” [28]. Thus, the relationship between existence and consciousness is accepted by many philosophers. Awareness, the perceptible aspect of consciousness, is responsible for observing cause and effect. To fulfill the need for entropy, it establishes aims for the future by observing recorded data in the past, interacts in the present, and diverse data in memory as the past. At the point of interaction, that is, at “present”, it correlates the different data available from the symbols of the lower world and creates a perceptible image for the upper world. This is the life of perception. In the absence of consciousness, the entity would receive no data from the past, and having no events to observe, it may not be able to decide on a future. This would prevent the operation of time, and everything would cease.

Different worlds have different levels of consciousness (awareness): intellectual, psychological, biological, and physical awareness. All entities own their individual properties, but their awareness is guided by the corresponding scientific principles. For example, different plants have different biological awareness, but all are guided by biology. Different elementary particles, such as electrons, muons, and bosons, have different properties, but they are all governed by the laws of physics. In the case of electromagnetic waves, awareness (consciousness) provides direction for propagation [29].

4. ORIGIN OF ENTITIES

4.1. Evolution of Entities

Our universe is filled with different types of unarranged cosmological substances. Nature provokes them into a systematic arrangement so that they can accept the discipline of the physical world [19]. This arrangement is the space fabric. Here, the Higgs field evolves physical mass [30], and physical existence overrides the freeness of cosmological substances, disciplining them so that physical life can flow. The three elements of physical existence take charge, and physical life begins. Existence is converted into the primary physical element of the entity or mass. The same process is applicable to the other levels of the universe. It can also be intellectual (knowledge), psychological (temperament), biological (organs), and cosmological mass (still unknown) (see [Figure 1](#) and [Figure 2](#)).

4.2. Difference between Existence and Entities

The author propounds that each entity is made of two basic parts: 1) existence and 2) the entity-body. Existence, the composite of imperceptible space, time, and consciousness and the code of the entity, operates all the perceptible activities of the entity-body. On the other hand, the entity-body, the composite of capability, activity, and awareness and the life of the entity, is directed by existence. No entity can exist without its existence.

5. DIVISION OF ACTIVITY (THE PERCEPTIBLE ASPECT OF TIME)

5.1. Basis of Multiple Levels of the Universe

Time is defined by activity in the flow of life. Each level of existence has its own time. All contribute to their corresponding levels, keeping the root definition of time intact.

1) Cosmological time (cosmological activity) is unknown to us. While discussing quantum entanglement, we found that if a pair of entangled particles have total spin equal to zero, then both particles are found to have opposite spins on the same axis. If these particles are kept apart even at a large distance, the data added to one particle will automatically reflexes in the second particle without taking any physical time [31]. Here, the travelling of information does not obey the speed of light. The author suggests that it is not a physical time, it is cosmological time that never depends on physical speed and physical distance. The cosmological world has its own definition of space and time.

2) Physical time (physical activity) activates (through receiving, storing, and emitting signals) the space fabric composed of cosmological substances (energy fields). It needs physical stimulation (differences in physical entropy). The duration of physical time is measured by atomic clocks.

3) Biological time (biological activity) activates (through feeding, digesting, and executing biochemicals) the space fabric composed of physical molecules (protein, carbohydrates, etc.). It needs biological stimulation (differences in biological entropy). The quantum of biological time is measured by heartbeats, breathing rhythm, cycles of sleeping and waking, and menstruation [32]. It is also believed that “Biological rhythmicity is a fundamental characteristic of life” [33].

4) Psychological time (psychological activity) activates (through accepting, feeling, and expressing emotions) the space fabric composed of biological substances (neurons). It needs psychological stimulation (differences in psychological entropy). It is stated that “Boredom can be seen as a situational state that lacks novel stimuli over a period of time” [34]. In this context, boredom indicates the low availability of psychological time.

5) Intellectual time (intellectual activity) activates (through knowing, thinking, and explaining logic) the space fabric composed of systematically arranged psychological substances (mind) [35]. It needs intellectual stimulation (differences in intellectual entropy). The quantum of intellectual time is concentrated on intellectual work [12].

A human being utilizes the time of all five levels. If the intellectual brain does not have the activity to understand (rationality), no information will travel to the brain. If the psychological mind does not have the activity to feel (mood), they will experience no emotion. If the biological body does not have the activity to sense, they will experience no sensation. If a physical object does not have the activity to receive, no energy fields (electromagnetic waves) will travel to the receiving physical object. Moreover, a receiver can receive magnetic flux or radiation only of specific wavelengths, depending on the receiver’s capability. Our radio set receives specific frequencies from several radiating frequencies.

5.2. Basis of Intrabody and Interbody Activation

1) Intrabody activation: each existing body has inbuilt zones with different entropy levels. These are two poles at which there is fullness of energy and hollowness of energy. Consciousness rotates around the poles, acknowledging each pole in turn, creating an oscillation. This oscillation represents self-time or self-flow activity in all types of entities. We have a brain pulse [36] for thinking, a mind pulse for feeling, a biological pulse for digesting, and a physical pulse for being active. These oscillations are the proof of life within the entity. And this time is existing life of the entity.

2) Interbody activation: while interbody activation, an entity inflow signals from another entity or outflows signals to another entity. The entity has an oscillatory life; hence, whatever is going out or coming in these oscillations automatically convert into waves. These waves flow in the medium of space fabric, with the capability (space) made available by the entity. As because the physical entities are made of the common substances, hence provide a common capability to flow, which is equal to c .

5.3. Basis of Individuality

Some philosophers believe that a common time exists across the entire universe, which flows through all entities. The author disagrees with this and propounds that there is “no universal now” [37]. All entities in the universe have their own “now”. The general theory of relativity acknowledges that time can pass

differently at different points in space. Different people can engage in different types of intellectual, psychological, biological, and physical activities. In other words, each entity has its own existence and, therefore, its own individual space, time, and consciousness. All entities are activated by their own individual time. With regard to the entity, its time begins with the origination by the Higgs field and ends because of nuclear fusion. It is believed that space and time did not exist before the Big Bang and that they came into being with the creation of the universe. However, if space and time are one phenomenon, these must have existed even before the big bang. The theory propounds that before the origin of physical mass, the universe was filled with cosmological substances. These substances did not have any physical existence (physical space, time, and consciousness). It is the Higgs field, which provides “physical existence”, and physical mass is evolved along with physical space, time, and consciousness [19].

5.4. Basis of Continuity

Although we cannot photograph time, the footprints of time can be observed. These footprints prove the existence of the past. When are these footprints created? The answer compels us to believe in the existence of the present. Why are these footprints created? The answer compels us to believe in the availability of an aim that lies in the future. Thus, the continuity of time is a reality comprised of these three segments. Contradictory points have been made among philosophers with regard to the direction of this continuity. According to Duke, “Time, in this view, divides objectively into past, present, and future and is dynamic. Events change from being future, to present, to past” [38]. The author proposes that the same activation can be viewed as two types of continuity. If someone activates himself, he will observe the sequence of time as the future, the present, and the past, but if he observes the activation from outside, he will see the opposite. We have previously explained that all individuals have their own time. Hence, another person cannot visualize the time of the activating body. Therefore, for technical purposes, the first form of continuity is perfect, where the entity decides the future for the present, executes the present, and finds the past created by the present. Both the future and the past are operated by entropy, creating the present, the actual time, as activity. In other words, the future is the aim that attains the present, the past is the result of the present, and the present lies between these two. All activities take place in the present. Some philosophers believe that only the present is real and the past and future are unreal [39].

In the case of intrabody intellectual analysis, the preconceived knowledge is stored in the memory, and the confusion behind the knowledge are used as the aim of the future. The analysis is made in the present through the incoming perception, which creates an unconfused image. After perceptions occur, the new image is stored as memories and becomes the past. Before the present, we had curiosity (lower entropy); after the present, the entropy or knowledge was improved. The same thing is true for our psychological temperaments, biological processes, and physical activations. In all these cases, data are derived from corresponding memories. In cases where data are acquired (observed) from or delivered (expressed) to other entities, these are called interbody activities.

6. FLOW OF TIME IN ELECTROMAGNETIC WAVES

Once an electromagnetic wave (due to disturbance) from the emitter is initiated, the receiver picks it up and carries it towards the self, using the space fabric as a means of activation [29]. The receiver lies in the lower entropy zone, creating time with an arrow directed towards itself only [40, 41]. Activation created by the emitter is operated by the receiver (Figure 3).

6.1. Medium of Electromagnetic Waves

Before 1887, it was believed that there was a medium through which light traveled called “luminiferous ether”. In 1887, an experiment by Albert Michelson and Edward Morley demonstrated no evidence of its existence. The question of what medium light passes through remained unanswered until 1920, when Albert Einstein introduced his theory of relativity, and the existence of spacetime was established [42]. In 2021, Agrawal [21, 42] explained that ether, emptiness, or space fabrics are one and the same thing. The

fabric of space is an average density of systematically arranged cosmological energy fields having no physical properties. However, these can be used as a means of activation for physical spacetime under the guidance of physical consciousness.

6.2. Concept of “Hollowness” Wave

In the case of a two-slit experiment, it is stated [43] that “we first note the pattern of light on the screen with just one slit open, then we open the second slit, admitting more light through the slits; however, some places on the screen, where there was visible light, go dark [...]. The cancellation of crests and troughs in the motion of water and other waves creates high and low points in water waves that have the same shape as bright and dark areas found in the ‘fringes’ of light at the sharp edges of an object”. The author argues that two slits must have more light relative to one slit. How the available light from the first slit is canceled by the light of the second slit. It can only be possible if the waves have a component of negativity.

The theory suggests that we have a space medium made of average cosmological space density. If the density is lower compared to the average space density, it is called “hollowness” (negativity) of space. In contrast, if the density is higher compared to the average space density, it is called “fullness” (positivity) of space. The theory suggests that an electromagnetic wave flows between these two peaks one by one at a phase difference of 180° . 1) One is the hollowness of energy representing lower entropy, dark matter, and the future of the wave motion, while 2) the second is the fullness of energy representing higher entropy, dark energy, and the past of the wave motion. Both are opposite to each other and behave just like the troughs and crests of water waves.

After the introduction of the “hollowness” wave, no difference between the water wave and the electromagnetic wave can be observed. Water wave has an average sea level, crest with higher potential energy, and trough with lower potential energy. In the same way, an electromagnetic wave has an average space density, crest with a positive energy level, and trough with a negative energy level. In both cases, the crest and the trough can cancel each other, and we find the dark spot, as shown in Figure 4.

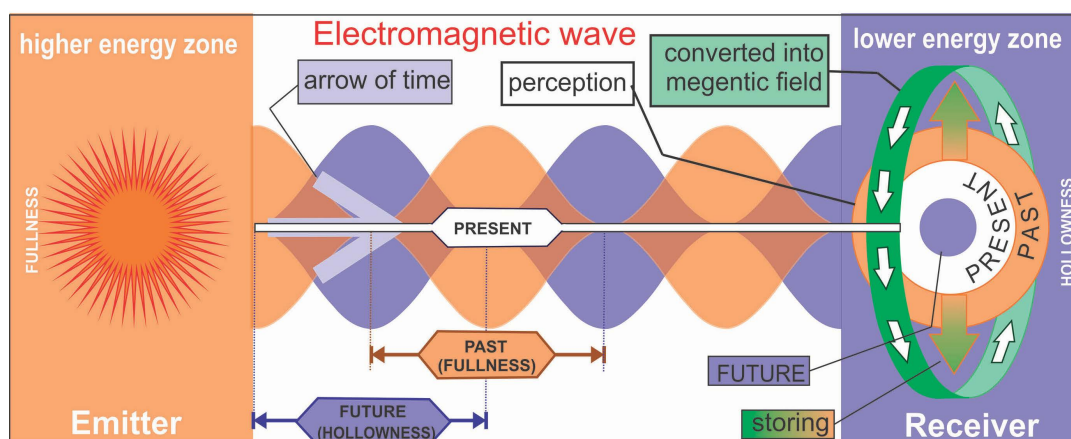


Figure 3. Two parts of a wave proceed simultaneously at a phase difference of 180° through space of average density. The hollowness wave has a negative density relative to the average space density and acts as the future of the wave. The fullness wave has a positive density relative to the average space density and acts as the past of the wave. When the wave travels through space, the present connects the connects with the receiver, with the arrow of time always towards the receiver. The receiver acquires the fullness and hollowness in the future of the interaction. During the interaction, which takes place in the present, a perceptible image is formed. In the past, the image is disintegrated and converted into a magnetic field.

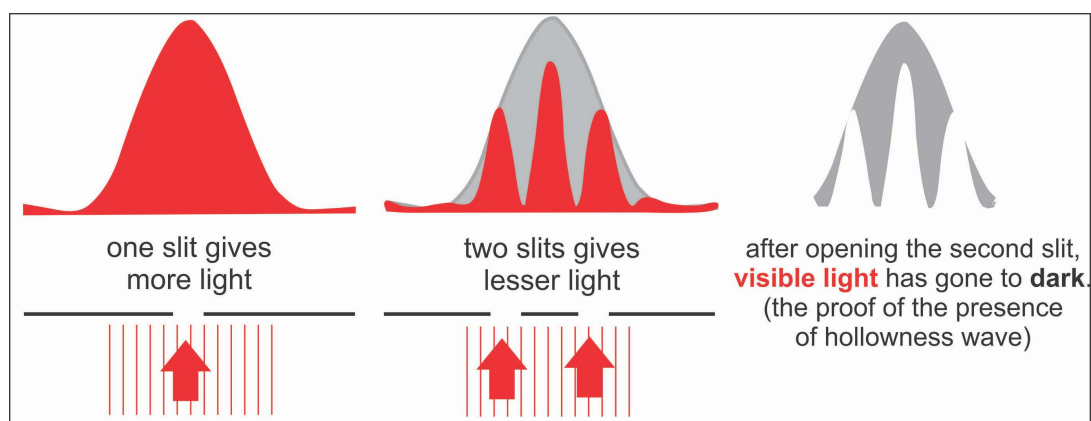


Figure 4. If one slit is open, there is more light than if two slits are open. This phenomenon proves the presence of the hollowness wave as the second part of the electromagnetic wave.

We could not observe this “hollowness” wave because we ourselves create the “hollowness” wave; hence, the observer itself cannot observe it.

6.3. Involvement of Time in Wave Motion

All entities have interbody emissions in the form of oscillations or frequency. When these oscillations move through space, they become a sinusoidal wave. The medium of this wave is space fabric, explained in chapter 3.4.1., which possesses an average cosmological density. The wave has two parts. The first has a positive or higher density, represents the past and the second has a negative or lesser density, represents the future, which are placed at the phase difference 180° . When the higher density wave is at maximum, the lower density field will be at minimum, and vice versa (see [Figure 3](#)). The terms “positive” and “negative” are relative to the average cosmological density of the space fabric and can be called fullness and hollowness in the space fabric. When these two waves overlap at a phase difference of 180° , we get a continuous flow of repeats of the future and the past [44]. At every point on the wave, the future and the past remain connected, may be variable in quantum; the present, which lies in between, creates a continuous line of flow. Hence, the present has no jumping point [35]. The presence of the hollowness wave has been proven in Chapter 6.2.

6.4. Involvement of Time in Perception

All entities self-interact through oscillations. Due to the need for increasing entropy, all entities are always dissatisfied [45]. They observe their own memorized data and find discrepancies (confusions). To find reality, they create a lower entropy zone, resulting in the generation of the future. The data relating to the subject are recovered from the memory and presented at an interaction chamber for reconsideration. This is called perception in the present. The interaction provides an image representing less confusing data. In other words, the data are improved. Thereafter, the image is disintegrated, and the improved data are re-stored in the memory. This is the past of activation. The incoming data lies in the future, the interaction lies in the present, and the re-storing of data lies in the past. The incoming and the outgoing data from/to the interaction chamber are sinusoidal waves at 180° to one another. During this process, due to the newly developed image, a small increase in entropy can be observed. Moreover, the continuous increase in entropy creates a continuing change in the image, and this change is the passage of time [7].

The above process is the intrabody interaction. For interbody inflow interactions, some data are received from other entities in the form of electromagnetic waves. These data are added to the data in the interaction chamber. For interbody outflow interactions, the disintegrated image is copied and sent from

the entity in the form of a magnetic wave as data. This offered data always lies in the past. If a third entity receives this data, it will convert it into an electric (energy) wave and receive it within its future. It can be observed that this process again increases entropy. An increase in entropy, a change in the image, and time passage are simultaneous.

7. SMALLEST UNIT OF TIME

The smallest unit of time is believed to be the Planck time, which is roughly 10^{-44} seconds, but there is no logical explanation for this. Carlo Rovelli [35] objects that “This means that there is no continuous ‘flow; instead, time ‘jumps’ from one quantum to the next without passing through the intervening period”. The author proposes that only the duration can be measured in seconds, but the smallest unit of time is actually one unit of “change”. This one-unit change occurs during one wavelength and is considered the smallest unit of time. There is no jump because both the future and the past pass in the sinusoidal wave, keeping a 180° distance between each other. A 360° arc can be measured from any location within the wavelength because the smallest unit of time is equal to one wavelength. A wavelength can have multiple sizes depending on the frequency of the wave, but the smallest unit of time will remain equal to the wavelength. Note that we are not measuring space as such; we are measuring time or change, and we are not measuring duration.

If the waves pass through the fullness of dark energy or the hollowness of dark matter, the speed of light reduces or increases accordingly. If we take speed as invariable, then space must instead shrink (hollow) or expand (fill). Even then, the definition of the smallest unit of time remains the same.

8. CONCLUSIONS

Our universe is comprised of two parts: the imperceptible universe, which is the field of philosophers and the perceptible universe, which is the field of scientists. Imperceptible existence is comprised of three inseparable aspects: space, time, and consciousness. When existence converts into an existing body (through its birth due to the Higgs field), these aspects take their perceptible forms: capability, activity, and awareness, respectively. Here, time is an imperceptible phenomenon but can be visualized as activity in the entity. Our universe has different levels of existence: cosmological, physical, biological, psychological, and intellectual. The word “activity” denotes not only physical activity but also biological activity, psychological activity, and intellectual activity. Each world has different applications of time, but the definition remains the same.

It is explained that each entity in the universe has its own existence and hence its own time or activity. Hence, time is not a common aspect, but it is an individual aspect attached to its existence. If time does not exist, the existence of the entity will dissolve, and the living entity will die.

This study explains that the universal entropy always needs to increase. To comply with the requirement, we have multiplication and diversification of signals available within the entity. Here, a need is created, which always lies in the future. This need provokes the interaction between available data to find diversification. The interaction takes place in the present, and an improved and diversified image is created. We read this image in the present. The image is a temporary phenomenon, hence disintegrating into data, which are certainly diversified and improved. These are stored in the memory and are called the past of the interaction. This interaction is called intrabody interaction. In the case of the interbody interaction, the entity receives data from other entities in the form of an electromagnetic wave. These data are combined with the original data already available for interaction. This results in a new image, further diversifying the data. In the case of emission, the disintegrated data are copied, and a copy is offered for emission for some receiving entity. In all cases, the future remains the cause, and the past remains the effect.

This study suggests that the electromagnetic wave needs a medium available in the form of the space fabric made of symmetrically arranged cosmological substances. This medium has an average space density. The wave consists of two parts: 1) the negative energy wave and 2) the positive energy wave. The nega-

tive energy wave has an energy density less than the average space density. This may be called “hollowness” in space. On the other hand, the positive energy wave has an energy density more than the average space density. This may be called “fullness” in space. The negative energy wave represents the need of the entity, hence called the future of the wave. In contrary, the positive energy wave represents the achievement of the entity, hence called the past of the wave. The theory suggests that both the waves are situated at 180° apart from each other in a wavelength. Secondly, both the waves are the result of oscillation, hence the sinusoidal shape. Therefore, an electromagnetic wave always encounters both waves, although the quantum of fullness or hollowness varies. In other words, the quantum of the future and the past always existed and created the present in between.

The presence of the “hollowness” waves is evidenced in Section 6.2. It is explained that the smallest unit of time (not of duration) is the occurred change during the flow of one wavelength.

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CONFLICTS OF INTEREST

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REFERENCES

1. Kuhn, R.L. (2015) The Illusion of Time: What’s Real? <https://www.space.com/29859-the-illusion-of-time.html>
2. Poletti, M. (2022) Time as Change. *History and Philosophy of Physics*.
3. Solomon, R.C. (2003) On Fate and Fatalism. *Philosophy East and West*, **53**, 435-454. <https://doi.org/10.1353/pew.2003.0047>
4. Markosian, N. (1993) How Fast Does Time Pass? *Philosophy and Phenomenological Research*, **53**, 829-844. <https://doi.org/10.2307/2108255>
5. Prior, A. (2011) Past, Present and Future. Oxford University Press, Oxford. <https://doi.org/10.1093/acprof:oso/9780198243113.001.0001>
6. McTaggart, J.E. (1908) The Unreality of Time. *Mind*, **17**, 457-474. <https://www.jstor.org/stable/2248314> <https://doi.org/10.1093/mind/XVII.4.457>
7. Coope, U. (2001) Why Does Aristotle Say That There Is No Time without Change? *Proceedings of the Aristotelian Society*, **101**, 359-367. <https://doi.org/10.1111/j.0066-7372.2003.00036.x>
8. Le Bihan, B. (2020) String Theory, Loop Quantum Gravity and Eternalism. *European Journal for Philosophy of Science*, **10**, 17. <https://doi.org/10.1007/s13194-020-0275-3>
9. Hussey, E. (1983) Aristotle Physics Books III and IV. <https://doi.org/10.1093/oseo/instance.00263617> https://personal.lse.ac.uk/ROBERT49/teaching/ph103/pdf/Aristotle_PhysicsBookIV_Ch11-14.pdf
10. Deasy, D. (2015) The Moving Spotlight Theory. *Philosophical Studies*, **172**, 2073-2089. <https://doi.org/10.1007/s11098-014-0398-5>
11. Kochiras, H. (2016) Newton’s Absolute Time. In: Gerogiorgakis, S., Ed., *Time and Tense*, Philosophia (Basic Phil. Concepts), Munich, 169-195. <https://philarchive.org/archive/KOCNAT>
12. Zakay, D. (2014) Psychological Time as Information: The Case of Boredom. *Frontiers in Psychology*, **5**, Article No. 917. <https://doi.org/10.3389/fpsyg.2014.00917>
13. Dowden, B. “Time”. The Internet Encyclopedia of Philosophy, Time. <https://iep.utm.edu/time>

14. Kelly, M.R. Phenomenology and Time-Consciousness. The Internet Encyclopedia of Philosophy. <https://iep.utm.edu/phe-time>
15. Gorham, G. (2011) Newton on God's Relation to Space and Time: The Cartesian Framework. *Archiv für Geschichte der Philosophie*, **93**, 281-283. <https://doi.org/10.1515/agph.2011.013>
https://www.academia.edu/10054664/Newton_on_Gods_Relation_to_Space_and_Time
16. Upanishad, K. (NA) 2/3/2013 astityevopalabdhavyastattvabhāvena cobhayoḥ. <https://texts.wara.in/vedas/upanishads/katha.html>
17. Upaniṣata, C. Chapter 6.2.1. To 6.2.4. sadeva...jayate. https://sanskritdocuments.org/doc_upanishhat/chhaandogya.html
18. Yashio, Y. (2017) Validity of Expanding Universe Theory—Static Universe Still Consistent with Hubble's Law. *Open Access Library Journal*, **4**, 1-4. <https://doi.org/10.4236/oalib.1103899>
19. Agrawal, P.K. (2021) An Alternative Approach toward the Origin of the Universe. *Philosophy and Cosmology*, **27**, 5-21. <https://doi.org/10.29202/phil-cosm/27/1>
20. Solov'ev, E.A. (2014) Physical and Metaphysical Aspects of Time and Consciousness. *Cosmology*, **18**, 201-211. https://www.researchgate.net/publication/233846870_Physical_and_Metaphysical_Aspects_of_Time_and_Consciousness
21. Agrawal, P.K. (2021) Structure of Space Fabric. *Natural Science*, **13**, 477-490. <https://doi.org/10.4236/ns.2021.1312041>
22. Hamby, B. (2013) Willingness to Inquire: The Cardinal Critical Thinking Virtue. *OSSA Conference Archive*, Windsor, 22-26 May 2013, 67. <https://scholar.uwindsor.ca/cgi/viewcontent.cgi?referer=https://www.google.com/&httpsredir=1&article=2037&context=ossaarchive>
23. Ben-Naim, A. (2020) Entropy and Time. *Entropy*, **22**, 430. <https://doi.org/10.3390/e22040430>
24. Vendler, Z. (1957) Verbs and Times. *Philosophical Review*, **66**, 143-160. <https://doi.org/10.2307/2182371>
25. Ingthorsson, R. (2016) McTaggart's Paradox. Routledge Studies in Contemporary Philosophy. Routledge, London. https://www.researchgate.net/publication/233381726_Understanding_McTaggart%27s_Paradox
26. Hameroff, S. and Penrose, R. (2014) Consciousness in the Universe: A Review of the "Orch OR" Theory. *Physics of Life Reviews*, **11**, 39-78. <https://doi.org/10.1016/j.plrev.2013.08.002>
27. Glattfelder, J.B. (2019) The Consciousness of Reality. In: *Information—Consciousness—Reality. The Frontiers Collection*, Springer, Cham, 515-595. https://doi.org/10.1007/978-3-030-03633-1_14
28. Honderich, T. (1998) Consciousness as Existence. *Royal Institute of Philosophy Supplement*, **43**, 137-155. <https://doi.org/10.1017/S1358246100004343>
29. Agrawal, P.K. (2021) Philosophical Approach to Space Fabric and Propagation of Light. *Natural Science*, **13**, 457-468. <https://doi.org/10.4236/ns.2021.1310038>
30. Organtini, G. (2016) The Higgs Mechanism For Undergraduate Students. *Nuclear and Particle Physics Proceedings*, **273**, 2572-2574. <https://doi.org/10.1016/j.nuclphysbps.2015.09.463>
31. Kwiat, P.G. (1999) The Mystery of the Quantum Cakes. *American Journal of Physics*, **68**, 33. <https://doi.org/10.1119/1.19369>
32. Švorc, P. (2019). Introductory Chapter: Chronobiology—The Science of Biological Time Structure. In: Švorc, P., Ed., *Chronobiology—The Science of Biological Time Structure*, IntechOpen, London. <https://doi.org/10.5772/intechopen.88583>
33. Burns, E.R. (2000) Biological Time and *in Vivo* Research: A Field Guide to Pitfalls. *Anatomical Record*, **261**,

141-152. [https://doi.org/10.1002/1097-0185\(20000815\)261:4<141::AID-AR3>3.0.CO;2-C](https://doi.org/10.1002/1097-0185(20000815)261:4<141::AID-AR3>3.0.CO;2-C)

34. Deng, S., Wang, W., Xie, P., Chao, Y. and Zhu, J. (2020) Perceived Severity of COVID-19 and Post-Pandemic Consumption Willingness: The Roles of Boredom and Sensation-Seeking. *Frontiers in Psychology*, **11**, Article ID: 567784. <https://doi.org/10.3389/fpsyg.2020.567784>
35. Camp, J. (2012) Decisions Are Largely Emotional, Not Logical. Big Think. <https://bigthink.com/personal-growth/decisions-are-emotional-not-logical-the-neuroscience-behind-decision-making>
36. Jones, D. (2000) Pulses of the Mind. *Nature*, **406**, 254. <https://doi.org/10.1038/35018683>
37. Rovelli, C. (2020) The Order of Time—By Carlo Rovelli. Absurd Being. <https://absurdbeingblog.wordpress.com/2020/01/27/the-order-of-time-by-carlo-rovelli>
38. Dyke, H. (2021) Time-Element of Metaphysics. Cambridge University Press, Cambridge, 3. <https://doi.org/10.1017/9781108935517>
39. Fernandez, E. (2019) Are The Past and Future Real? The Physics and Philosophy of Time. *Forbes*. <https://www.forbes.com/sites/fernandezelizabeth/2019/11/10/are-the-past-and-future-real-the-physics-and-philosophy-of-time/?sh=1edf3b4a4905>
40. Donoghue, J.F. and Menezes, G. (2020) Quantum Causality and the Arrows of Time and Thermodynamics. *Progress in Particle and Nuclear Physics*, **115**, Article ID: 103812. <https://doi.org/10.1016/j.pnpnp.2020.103812>
41. Martyushev, L.M. (2017) On Interrelation of Time and Entropy. *Entropy*, **19**, 345. <https://doi.org/10.3390/e19070345>
42. Einstein, A. (1920) Ether and the Theory of Relativity. Methuen, London. https://doi.org/10.1007/978-94-011-6022-3_2
43. Robert, O. (1968) The Two-Slit Experiment and “One Mystery” of Quantum Mechanics. The Information Philosopher. https://www.informationphilosopher.com/solutions/experiments/two-slit_experiment
44. Placek, T. (2021) Past, Present and Future Modally Introduced. *Synthese*, **198**, 3603-3624. <https://doi.org/10.1007/s11229-019-02302-w>
45. Phil, A. (2002) Prologue, Thermodynamics and Statistical Mechanics. Academic Press, Cambridge, 1-18. <https://www.sciencedirect.com/science/article/pii/B9780120663217500015>
<https://doi.org/10.1016/B978-012066321-7/50001-5>