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"There Is a Time for Everything …": A Holistic Lesson in Temporal Recalibration for Humankind

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Abstract

Time, an enigmatic force that governs the progression of life, remains a complex and elusive concept in human understanding. The inexorable movement from order to disorder, governed by entropy, gives rise to the forward orientation of the time arrow, defining the separation between past, present, and future. With change and transformation as fundamental markers of time's passage, the human mind primarily perceives a distorted version of temporality. Einstein's theories of relativity hint at the existence of a fourth dimension, spacetime, while quantum mechanics suggests a unified basis of existence with varying degrees of complexity across different systems. This paper provides a comprehensive overview of time, aiming to reconcile biblical and spiritual *timescapes* with prevailing scientific and psychological theories that have shaped the human world. Additionally, drawing on Kazuo Ishiguro's novel, *The Buried Giant*, the study delves into the theme of temporal impairment in characters while exploring the Christian concept of forgiveness as a means to pave the way for a peaceful future. By considering the distorted nature of time from multiple viewpoints, this interdisciplinary approach seeks to impart a valuable lesson to humankind. Embracing time distortion with an open heart can thus serve as a powerful tool for preserving human sanity and guiding choices, decisions, and actions in the right direction. This, in turn, enables individuals to harness the passage of time and restore their own temporality to a healthier perspective. Through this investigation, the paper provides a multifaceted dimension of time and its profound impact on the human experience.

Keywords: temporal interdisciplinarity, temporal distortion and recalibration, human nature, temporal theories, *The Buried Giant*

INTRODUCTION

Time, an enigmatic and multifaceted phenomenon, stands as one of the most captivating mysteries known to humanity. Its elusive nature is underscored by the myriad of temporal conceptions acknowledged by humankind. From personal and collective time to scientific time in both linear and simultaneous forms, and from physical perceptions of time to universal perspectives, the spectrum of temporal realities seems boundless. Moreover, the concept of spacetime introduces yet another dimension, adding to the complexity of this captivating subject (Green 2005). In this contemporary age, the convergence of various disciplines and fields of work presents a unique opportunity to construct a holistic and wholesome image of time, one that can revolutionize the well-being of humankind, the Earth, and even extend to the farthest reaches of the Universe within the boundaries of human perception.

According to scientific measurements, the Earth emerged 4.5 billion years ago in a Universe that is approximately 13.7 billion years old. However, when we consider alternative perspectives, such as the Divine ratio of time (1:1000), which differs from the Divine ratio of space, the Universe's creation appears to have taken place only thousands of years ago. This stark contrast is amplified by the realization that light from distant stars takes millions of years to reach us (Humphreys 2008). Such contrasting interpretations lead to contemplation on the concept of *apparent age* versus *true age*, suggesting that the processes of creation might differ from those observed today, rendering the age of the world inherently ambiguous. The notion of time's linearity and unceasing movement sparks intriguing comparisons, suggesting that modern humans may experience life at a decay rate approximately ten times faster than that of biblical humans before the Flood. This revelation inevitably brings to light the question of time's necessity and the potential for its acceleration or deceleration (Custance 1976).

While some might seek solace in envisioning time as an uncontrollable universal clock that measures human transience, the reality remains that time is measured differently in various regions across the globe. Why does the day begin in New Zealand while night falls in France? The answers to such questions shed light on the intricate and interconnected nature of temporal dynamics, and yet, these seemingly mundane examples merely scratch the surface of the deeper complexities surrounding time. In the pursuit of comprehending time's profound intricacies, this research paper embarks on a journey through the vast realm of temporal conceptions. It aims to explore the interplay between ancient wisdom, scientific knowledge, and diverse cultural beliefs to construct a comprehensive and integrated understanding of time. This interdisciplinary approach seeks to foster a new awareness that could redefine humanity's relationship

with time, which may unlock the true potential of humankind in harmony with the cosmic rhythms of existence.

SCIENTIFIC TIME

Temporal Warp

One of the most intriguing aspects of time is its interdependence with the space it occupies. In a fascinating revelation, it becomes evident that the nature of space itself governs the speed at which time flows, leading to remarkable consequences that impact all entities within the spacetime fabric. This profound phenomenon, rooted in the principles of general relativity, as discovered by the renowned physicist Albert Einstein, unveils a dynamic relationship between time and space that shapes the very essence of existence. At its core, general relativity postulates that each place in the Universe possesses its own unique time zone, leading to a dynamic interplay of all these temporal zones working in unison. As a result, individuals living at different altitudes within a gravitational field experience time at varying rates. In practical terms, those residing on higher floors, such as the tenth floor of a building, have their clocks ticking at a slightly faster pace compared to their counterparts on the ground floor or at intermediate levels. While the difference may be minuscule, the cumulative effect over time is significant, leading to an intriguing observation: beings, including plants, existing at higher levels age or grow faster than their counterparts at lower levels, effectively living longer. This underlying principle of general relativity, and its influence on time and space, further illuminates the concept of spacetime as a unified dimension. The distribution of mass and energy within this dimension can warp the fabric of spacetime itself, causing gravity to emerge as a consequence of this warping or denting of the unified spacetime continuum. This revolutionary theory, introduced by Einstein, not only underlies humanity's understanding of the Universe in its grandest magnificence but also connects with the concept of special relativity. The theory of special relativity introduces the famous mathematical equation, $E = mc^2$, which denotes the equivalence of energy (E) and mass (m) as two distinct forms of the same entity. This profound insight implies that energy can be converted into mass and vice versa, unraveling the interconnectedness of fundamental forces within the cosmos. Furthermore, time's irrevocable progression from past to future aligns with the movement of heat from hot to cold. This connection between heat, time, and change is inseparable, with time being intrinsically linked to the transformative processes within the Universe. When a state of complete cold is reached, time at a certain level comes to a halt, signifying a cessation of change and motion. A tangible example can be found in the experience of hot coffee, where time stops at the moment when the beverage reaches the desired temperature for consumption (Craig 2000). As the past, present, and future manifestations of life are

intimately connected to heat, change, and movement, a profound understanding of time emerges. Its temporal distinction between past and future hinges on the progression of heat, symbolizing the metamorphosis of realities toward their ultimate destinies. This elegant interplay of heat and time forms the underlying tapestry that governs the unfolding of the Universe itself (Rovelli 2018).

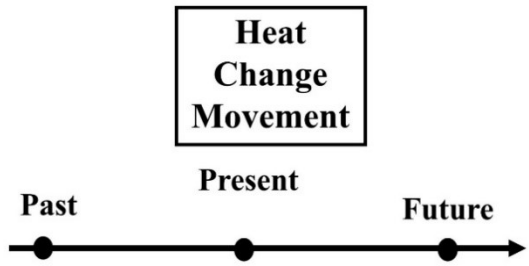

Figure 1: Time and change (Călinescu 2023)

The exploration of scientific time thus delves into the fascinating interplay of time and space, as illuminated by Einstein's groundbreaking theories of relativity. This intricate relationship reveals the dynamic nature of time, influenced by the distribution of mass and energy within the fabric of spacetime. Moreover, the inseparable connection between time and heat highlights the entwined nature of change and movement within the Universe. Through these profound insights, humans can embark on a holistic journey of temporal recalibration, seeking to understand and harness time's fundamental essence for the betterment of humankind, the Earth, and the cosmic tapestry that binds everyone together.

Relativity of Perception

In the relentless quest to understand time's intricacies, Einstein's ground-breaking discoveries extended beyond the dependence of time on the space it occupies. The physicist's theory of special relativity thus reveals yet another astonishing revelation: time is not only affected by the space it resides in but also by the speed at which objects move within that space. This remarkable phenomenon, known as time dilation, has profound implications for one’s perception of time and its relativity. In essence, time dilation asserts that the faster an object moves, the slower its time appears to pass. This fascinating concept has implications not only for the ageing process but also for the adverse effects of sedentary lifestyles. Objects in motion experience time at a different rate compared to stationary objects. Interestingly, the individual experiencing time dilation while moving remains unaware of the temporal difference. It is only the observer, the person at rest relative to the moving object, who perceives the discrepancy in time passage. This phenomenon has been confirmed through experiments with moving clocks, which consistently run more slowly than their stationary counterparts. Once the moving object returns to rest, its time synchronizes with the stationary frame

of reference, but it has effectively *lost* a portion of time experienced during motion (Savitt 2011). These revelations challenge the conventional notion of an absolute and independent present moment. The relativity of time highlights that different *now* moments exist depending on the observer's position in space and their relative speed. For example, what is present for an individual on Earth may represent the past for someone living at a distance of one light-year away. The concept of looking at distant objects through a telescope thus becomes akin to peering back in time (Stannard 2008). Einstein's theory also gave birth to the concept of spacetime as the fourth dimension, further accentuating the interdependence of time and space.

Quantum Temporality

Venturing further into the subatomic realm, quantum mechanics unveils the smallest units of the Universe, known as quanta. This branch of physics delves into the behavior of matter and energy at the subatomic level, presenting an intriguing juxtaposition with the theory of relativity. The principle of wave-particle duality, a cornerstone of quantum theory, reveals that elementary units of matter and energy can exhibit characteristics of both particles and waves, depending on their context and the manner of observation. Additionally, the uncertainty principle suggests that the complete measurement of quanta is inherently impossible due to the fundamental forces governing the Universe. The Copenhagen interpretation, a significant viewpoint on the connection between quantum principles and reality, posits that a quantum unit can manifest as either a wave or a particle depending on how it is measured. The superposition principle, an integral part of the Copenhagen interpretation, further asserts that quanta may not possess definitive properties until observed. This concept introduces the idea of probabilistic reality, wherein objects exist in multiple potential states simultaneously before observation. The duality and uncertainty of quantum particles challenge the notion of objective reality, suggesting that only when observed do these entities *collapse* into a specific state. Until then, they may exist in multiple possibilities, a paradoxical state where objects can be both dead and alive. Such enigmatic revelations in quantum mechanics have given rise to the multiverse theory, proposing the existence of multiple parallel universes. Within this framework, every possible outcome of events is realized across different universes, opening up an infinite realm of possibilities (Hilgevoord & Atkinson 2011).

The interplay between scientific time, as elucidated by Einstein's theories, and quantum mechanics' enigmatic principles, has revolutionized humans' understanding of reality and the relativity of perception. Time emerges as a dynamic, interwoven force within the spacetime continuum, intimately connected with the movement of objects and the

behavior of subatomic particles. Quantum mechanics introduces a new layer of uncertainty, challenging conventional notions of objective reality and inviting contemplation on the vastness of potential outcomes within the multiverse. As one continues one's journey toward temporal recalibration, these profound insights pave the way for a more nuanced comprehension of time's mysterious fabric, unlocking the door to new possibilities for humankind's evolution and harmonious coexistence with the cosmos.

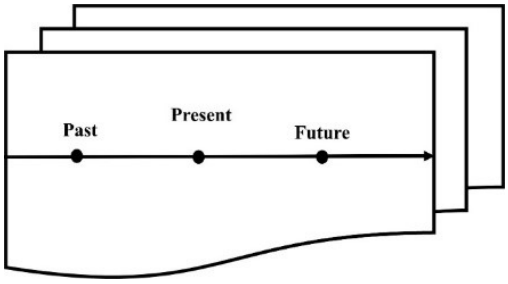

Figure 2: The multiverse theory (Călinescu 2023)

Venturing into the depths of quantum mechanics, the nature of time takes on an even more bewilderingly enigmatic form. In the subatomic realm, time thus unveils itself as granular, indeterminate, and relational, challenging humans' conventional understanding of a continuous and linear flow. This quantum perspective of time emerges from the inherent probabilistic nature of all objects and the coexistence of multiple states in parallel universes. In the quantum domain, objects are not confined to singular states; instead, they exist in a superposition of all possible states until observed. Each of these states unfolds in a distinct parallel world, interconnected through the phenomenon known as quantum entanglement. This intricate entanglement implies that the interaction between objects in one universe can affect parallel universes, creating a web of interdependence that defies classical intuition (Rovelli 2018).

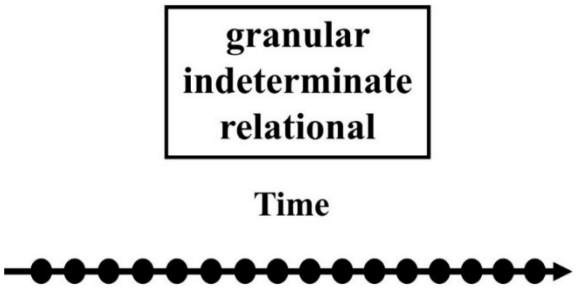

Figure 3: Moments in time (Călinescu 2023)

The implications of this quantum perspective extend beyond the micro-level, impacting human perception of reality on macroscopic scales. The chaos theory and the butterfly effect exemplify how even minute choices and decisions can have far-reaching consequences, reverberating across the entire Universe. In this quantum reality, time, like all aspects of existence, is intrinsically interconnected with space and matter. It is not an independent entity but rather a fluid, relational construct, occurring

simultaneously in the past, present, and future. Until observed, time's actual state remains a probabilistic guess, with its true value stemming from the myriad of relations it forms (Rovelli 2018). This perspective of time profoundly challenges the philosophical worldview of presentism, which assigns physical significance only to the unfolding events of the present moment (Zimmerman 2011). Instead, the concept of eternalism emerges, positing that past, present, and future possess equal reality and continually influence one another (Romero 2017). The interrelation of events thus becomes paramount, allowing the past to directly influence the future!

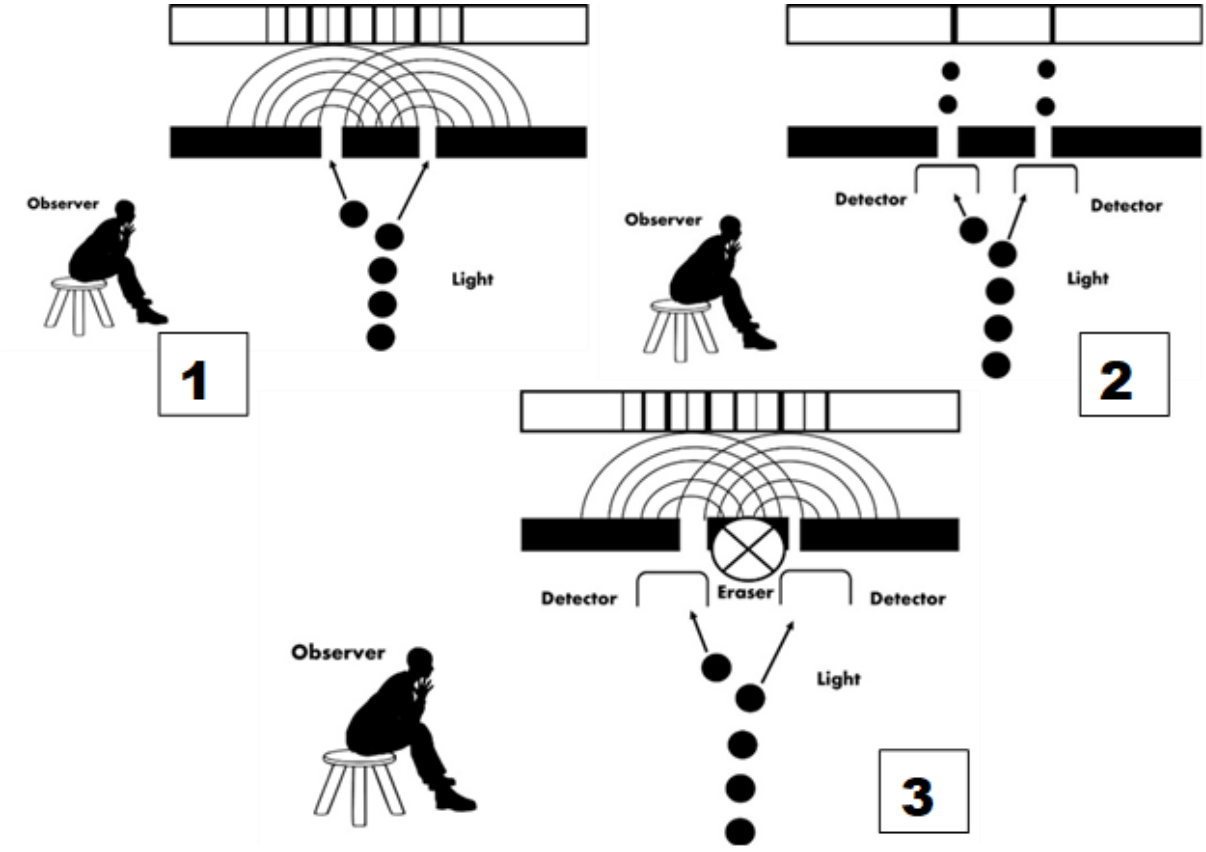

Figure 4: Delayed choice quantum eraser, stages 1, 2, 3 (Călinescu 2023)

A controversial experiment, known as the Delayed Choice Quantum Eraser, offers compelling insights into the nature of time and its potential influence on the past. In this experiment, particles exhibit perplexing behavior when subjected to delayed observations. During the initial double-slit experiment, particles were allowed to pass through two holes in a barrier, one at a time, creating a striped pattern on the material behind the barrier. However, when a pair of detectors was introduced to determine which hole each particle went through, the striped pattern vanished. In the modified version of the double-slit experiment, a delayed choice quantum eraser was

incorporated with the purpose of erasing the information in the detectors after the particles passed through them, but before the results were observed. Furthermore, this erasure of information in the detectors could occur even after the particles had already interacted with the material behind the two-holed barrier (Kim & Ham 2023). Remarkably, the introduction of the quantum eraser after the particles have passed through detectors resulted in the reappearance of the striped pattern on the material. This intriguing outcome raises the possibility that the quantum eraser might be transmitting information backward in time, potentially influencing the particles' behavior before erasing the detector information. This apparent time-reversal implies that the future may affect the past, presenting a paradoxical scenario where cause and effect appear to be in reverse order. The observer's role in collapsing the wave function and influencing particle behavior adds another layer of complexity, raising questions about the role of consciousness in the quantum realm. The experiment's results suggest that subatomic entities have the potential to act as either particles or waves, depending on their measurement choice. Remarkably, when their measurement is delayed, they still behave as if they were measured at the moment of their decision, effectively changing their initial behavior retrospectively. This intriguing phenomenon implies that the act of observation can transcend time, influencing past states based on future decisions (Carroll).

Quantum temporality thus unravels a realm of possibilities and paradoxes that challenge one's conventional understanding of time. The coexistence of multiple states and parallel universes reveals a tapestry of interdependence that permeates the very fabric of existence. The influence of consciousness in the quantum realm hints at the deep interconnectedness between the observer and the observed, blurring the boundaries between the subject and object (Greene 2005). As one probe deeper into the mysteries of quantum mechanics and its implications for time, one finds oneself on the precipice of a profound transformation in one's understanding of reality and the fundamental fabric of the Universe.

Interconnection

In the realm of quantum mechanics, the nature of causality takes on a profoundly mysterious form, challenging conventional ideas about cause-and-effect relationships. At a Newtonian level, the entanglement of particles and their seemingly simultaneous wave-particle behavior suggest that effects can influence causes, blurring the lines between past and future. This observation extends to an existential level, illuminating the interconnectedness of events and individuals on a vibrational level (Sklar 2011; Smolin 2013). Life is akin to water, where the source of a river remains inherently

connected to the ocean it flows into. The traditional notion of causality, however, falls short in explaining how one event influences another, as events are not separate entities linked by cause and effect but merely different sections of one continuous and unfolding happening (Watts 1998). The enigmatic nature of quantum particles continues to perplex, as electrons can appear to travel from one place to another without any observable evidence of the actual journey in between. This phenomenon challenges the conventional understanding of space and time, raising questions about the fundamental fabric of reality. Despite the profundity of these scientific principles and theories, they do not negate the significance of individual and collective perceptions of space and time. On the contrary, they emphasize the importance of the observer in the creation and emergence of realities and events. Time itself is thus regarded as an emergent phenomenon, shaped by one's personal and social perspective on the vast expanse of the Universe. Ongoing experiments in quantum mechanics, such as Wigner's friend experiment, endeavor to explore the role of the observer in shaping reality and the nature of measurement. Moreover, the concept of change stands at the core of distinguishing between past, present, and future, as time's arrow propels one forward (Price 2011; Guérin et al. 2021). Scientifically known as entropy, this arrow points towards the progression of all processes from order to disorder, or from heat to cold. The second law of thermodynamics encapsulates this progression, highlighting that stasis represents a lack of entropy, while movement signifies an increase in entropy. As entropy drives the flow of time in one direction, it implies that the Universe will eventually reach an end. Before that eventual fate, all living organisms on Earth require a constant source of low entropy to sustain their progression through time, and only the sun can fulfill this crucial role. The sun emits hot photons while Earth releases ten cold photons for each emitted hot photon. This intricate interplay sustains life on the planet: balancing chemical reactions within the animal and human body increases entropy while photosynthesis in plants decreases entropy by storing energy and nourishing living beings (North 2011).

The elegant harmony of the Universe unfolds through this intricate web of relationships, where every event, every particle, and every observer are inseparably connected (Barbour 1999). The exploration of scientific time, delving into quantum mechanics and the principle of entropy, thus uncovers a tapestry of interconnections that weave through the fabric of reality. The enigmatic behavior of quantum particles challenges humans' traditional understanding of causality, revealing a complex and nuanced relationship between cause and effect. The importance of the observer in shaping reality underscores the profound role of consciousness in the unfolding of events. As time flows forward, guided by entropy's arrow, the interconnectedness of all beings and phenomena within the vast Universe becomes a testament to the

fundamental harmony that permeates existence (Kiefer 2011). This holistic lesson in temporal recalibration beckons humanity to embrace this interconnectedness and harmoniously coexist within the grand symphony of space and time.

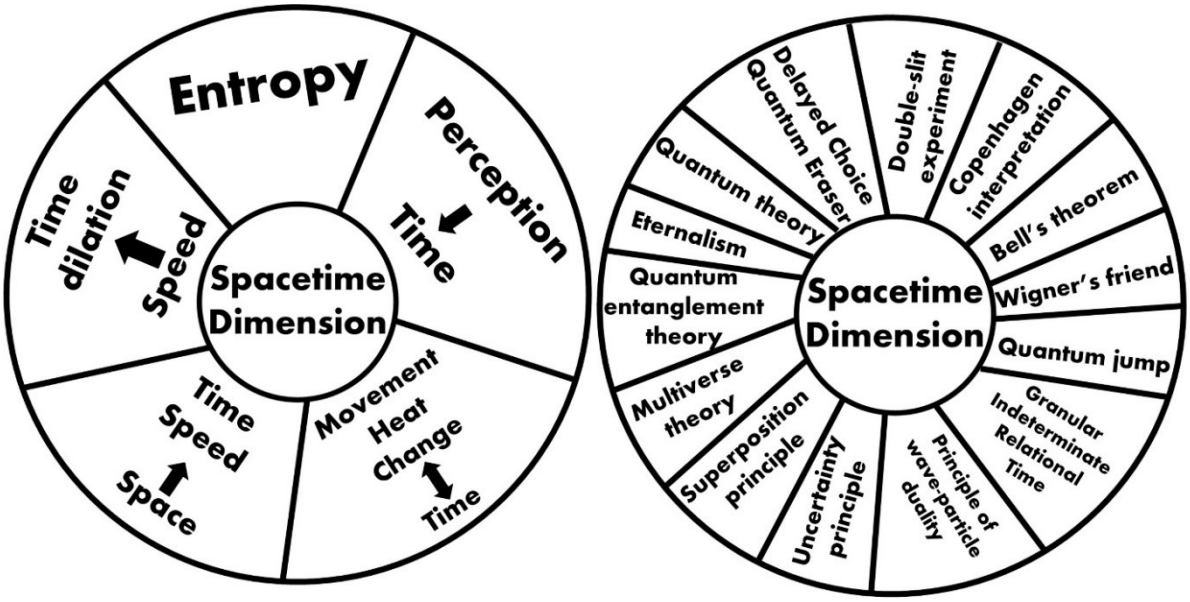

Figure 5: Scientific time (Călinescu 2023)

PSYCHOLOGICAL TIME

Temporal Perception

Despite its occasional clashes with scientific time, temporal perception holds immense significance at both individual and collective levels within the human world as it serves as the intricate interconnection of four fundamental components: one's worldview, intellect, memory, and internal timekeeper. These four temporal sources are intricately stored in the recesses of the mind, ultimately shaping and influencing one's daily behaviors and experiences (Grünbaum 2014). At the heart of temporal perception lies the biological clock, commonly referred to as the internal timekeeper. This intrinsic mechanism plays a pivotal role in one's perception of time, influencing how one experiences durations and sequences of events. However, it is essential to recognize that the perception of time can differ widely from one individual to another, giving rise to various types of temporal distortions at both the individual and collective levels (Gallagher 2011). Understanding another person's perceived duration of events proves to be quite a challenging feat, as it remains highly subjective and deeply rooted in one's unique perspective of the world. This subjectivity is further exacerbated by the complexities of time intervals, durations, and simultaneity experienced differently by each person (Hammond 2013).

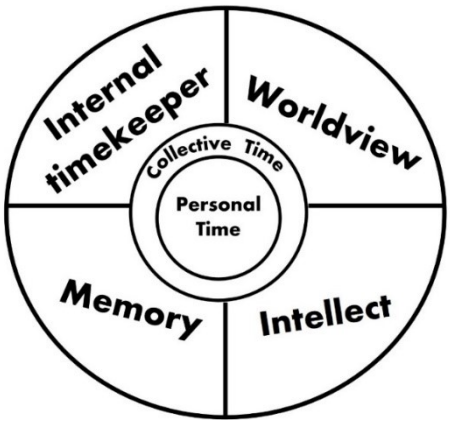

Figure 6: Time perception factors (Călinescu 2023)

The memory of time, a subject of long-standing study, is closely linked to temporal perception. Theories such as the strength and inference models shed light on the factors that influence one's ability to recall past events accurately. Past events' real-time can thus be determined either by the strength of memory traces imprinted on the mind or the temporal accuracy of related past events. This intricate interplay between memory and temporal perception shapes one's understanding of the past (Friedman 1993). Furthermore, the collaboration between the senses and different parts of the brain, including the cerebral cortex, cerebellum, and basal ganglia, plays a crucial role in coordinating the biological perception of natural cycles, ranging from milliseconds to circadian cycles. Directly influenced by the metabolic rate and the proper functioning of the hormonal system, the biological clock can therefore regulate the hours of wakefulness and sleep as it operates not only in humans but also in various living creatures, hence the universality of the temporal sense across different species. Thus, temporal perception occupies a central role in shaping one's experiences and behaviors in the human world. The complex interplay between one's worldview, intellect, memory, and internal timekeeper influences how one understands past, present, and future events. As individuals, humans' unique temporal perspectives add depth and diversity to their shared human experience.

Specious Present

Embedded within the intricate fabric of the human brain lies a recurring sense of the present, a temporal phenomenon known as the specious present. This concept, extensively studied by psychologist William James, delves into the relationship between human experience and time, offering profound insights into one's perception of the present. In the specious present, one thus encounters a peculiar distortion where the present is intricately intertwined with the recent past, creating a deceptive sense of immediacy that intervenes between the past and the future (Dainton 2011). William James eloquently describes this phenomenon, suggesting that within the specious present, all the elements of a singular experience seem to be contained within the present moment.

For instance, when one listens to a bar of a song, all the musical notes appear to exist simultaneously in the present. This sense of immediacy within the specious present gives the illusion that time is confined to a single moment, omitting the recognition of the past and the future. In light of James's insight, time, as perceived by human apprehension, can be deconstructed into four parts: the obvious past, the specious present, the real present, and the future. The obvious past represents events that have already occurred and are recognized as part of the past. In contrast, the specious present involves the immediate moment of experience, where recent events seem to coalesce with the present. The real present, as defined by conventional philosophy, is the true present moment while the future comprises events that are yet to occur (James 1981; Mozersky 2011). The specious present thus offers an intriguing insight into the intricate interplay between human perception and the temporal experience as it highlights the distortion of immediacy that the mind constructs, blurring the boundaries between the recent past and the present.

Time Distortions

While the human body possesses an innate ability to recognize the regularity of time passage for its well-being, the perception of time at the psychological level can often be considered a distortion of anatomical time, leading to various temporal illusions and impairments. One such common temporal illusion is the telescoping bias, which manifests in the human tendency to distort the perception of time concerning past events. Backward telescoping thus occurs when recent events are perceived as more distant in time than they actually are while forward telescoping involves the perception of remote events as more recent. Surprisingly, after an average of three years, individuals may freely switch between expanding or moving forward in the past, with a general inclination to consider all events as occurring in the near past. Researchers attribute this temporal impairment to people's tendency to estimate the date of a past event based on the information they recall about it. The accessibility hypothesis highlights the role of event memorability in overestimating their time of occurrence. Events that leave a significant impact on individuals are more vividly remembered, creating a false sense of recency and contributing to the telescoping bias. Another example of temporal distortion is Vierordt's law, which demonstrates how people often mix up the perception of long and short moments. In this phenomenon, short-term events are lengthened (overestimation), while events spanning longer periods are shortened (underestimation). Time dilation can also occur in events marked by danger or significant changes, as well as in situations interrupted or influenced by auditory experiences or intensified sensory perception, such as sound intensification.

Conversely, people may experience time contraction when they are genuinely motivated to engage in an activity.

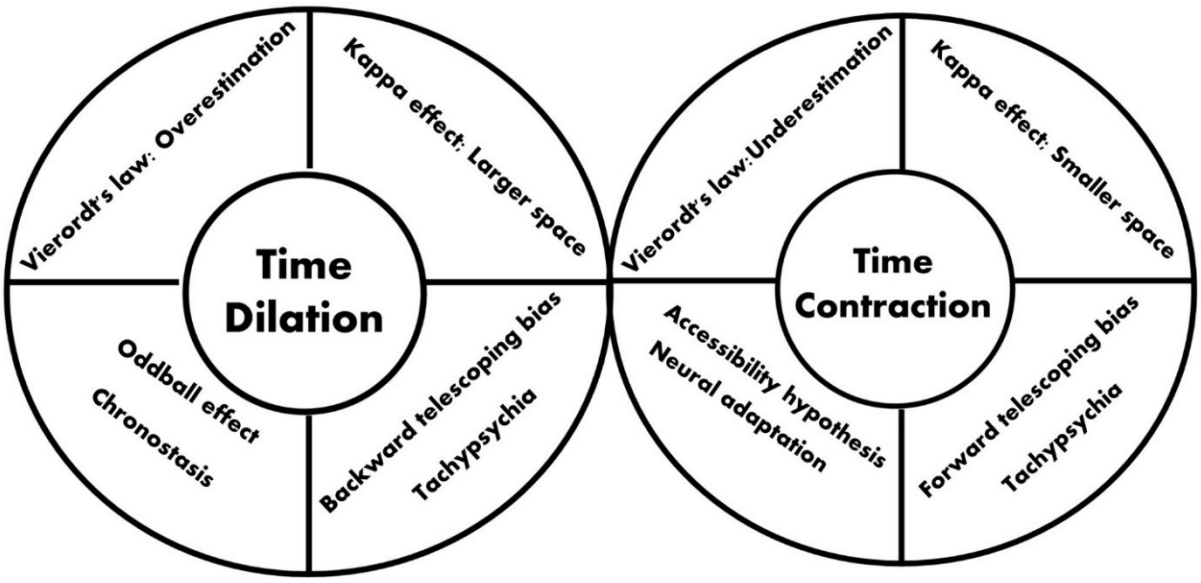

Figure 7: Time dilation and contraction (Călinescu 2023)

The illusion of simultaneity occurs when individuals experience repeated events, which makes them perceive those events as happening at the same time. The Kappa effect adds to the distorted perception of temporality, as people decide the duration of events based on the spatial context related to them. Larger spaces thus tend to lead to overestimation of time while smaller spaces may result in underestimation. Emotions play a significant role in shaping time perception. Novelty and new experiences, such as encountering new things, doing new tasks, or participating in unfamiliar activities, can thus lead to time dilation. In contrast, traumatic or stressful events, as well as situations triggering intense emotions like fear and awe, can induce tachypsychia, a neurological condition that distorts one's sense of time by either slowing it down or speeding it up. Habits and routines contribute to time distortion, particularly in adults and seniors. As their minds have assimilated most world models, they tend to experience a sense of time contraction due to the repetitiveness of activities and tasks. Neural adaptation further exacerbates this phenomenon, leading to a chronic sense of time contraction in the elderly (Călinescu 2023).

Psychological time thus presents an intriguing landscape of temporal illusions and impairments, yet understanding its intricacies could provide valuable insights into how the human mind constructs temporal experiences, ultimately shaping a subjective understanding of the temporal flow.

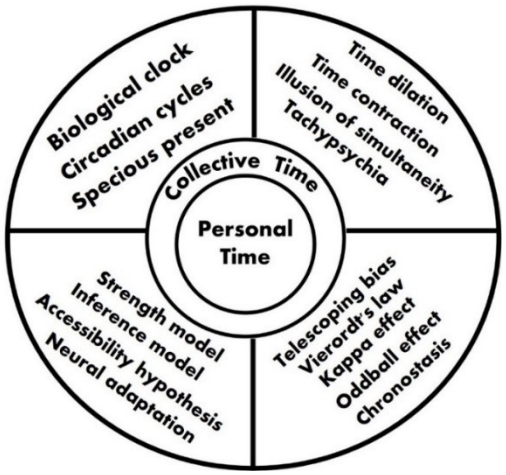

Figure 9: Time distortion theories (Călinescu 2023)

BIBLICAL TIME
Temporal Insights

The Bible, as a timeless and sacred text, not only serves as a spiritual guide but also offers profound insights into the nature of time and its significance for human existence. Throughout its verses, the Bible reveals a unique perspective on temporality, transcending conventional human understanding and providing a framework for comprehending the Universe's unfolding. The very first words of the Bible, "In the beginning was the Word," set the stage for contemplating time's inception. Science aligns with this notion, suggesting that before the Big Bang, there was no time as perceived today. Therefore, the Book of Genesis presents a significant parallel between the biblical concept of the beginning and the scientific understanding of the Universe's origin. Central to the Bible's temporal perspective is the notion of God's eternal nature. God is described as Light, and His Word represents His Eternal Energy, which transforms into the material world, comprising the entire mass of the universe without ever diminishing. This perspective elevates time to a higher plane, as it emerges from the Eternal Source and becomes an intricate part of God's creation. As the Bible accounts for the six days of Creation, it brings to the forefront the idea of time being a creative force, rather than a mere linear progression. God's omnipotence defies human comprehension of time, as His word brings the Universe into being instantaneously. The concept of linear time thus loses its meaning in the face of God's timeless existence, where past, present, and future coalesce into an eternal now (Penn 2017; Carter 2018).

In the Bible, time also takes on symbolic and prophetic significance, as certain events are marked by their temporal implications. The Creation narrative emphasizes the significance of the seventh day of rest, setting a pattern of cycles and rhythms in the biblical understanding of time. This rhythm is further elaborated through the

establishment of a Divine Clock – the solar system clock – where luminaries are created to separate day and night, serving as signs, appointed seasons, days, and years. Here, time becomes an integral part of God's design for the Universe, interwoven with His divine purpose. Moreover, the Bible offers insights into the temporal implications of human actions and decisions. The concept of free will grants humans the power to choose their paths, leading to temporal consequences that echo through eternity. The Fall of Adam brings a temporal shift, as time is now perceived with a beginning and an ending, reflecting the fragility and impermanence of the human condition. The Bible also touches on the notion of time's relativity, where the apparent age of the world may not necessarily align with its true age. God's Creation process may thus have involved different temporal dynamics, beyond one's current understanding, blurring the distinction between apparent age and true age (Mortenson & Ury 2008; Bartholomew 2015; Penn 2017). The biblical insights into time culminate in the understanding that God, as the Eternal Creator, exists outside the confines of time. God's timeless nature defies human attempts to comprehend Him within temporal terms, for He is both the beginning and the ending, encompassing all of time within Himself. The Bible also contains its own decay rate, signifying changes in time's perception, such as the acceleration of time after the Flood and the events of the tower of Babel (Carter 2018).

The Bible's temporal perspectives thus offer a profound and intricate understanding of time and its relation to God's eternal nature and Creation, transcending conventional notions of linear time and inviting one to contemplate time as a creative force.

Psalm 90:2: *"Before the mountains were brought forth, or ever you had formed the earth and the world, from everlasting to everlasting you are God"*
Genesis 1:1: *"In the beginning God created the heaven and the earth"*
Genesis 2:4 : *"These are the generations of the heavens and of the earth when they were created, in the day that the Lord God made the earth and the heavens"*
Isaiah 48:3: *"I have declared the former things from the beginning; and they went forth out of my mouth, and I shewed them; I did them suddenly, and they came to pass"*
Isaiah 41:4 : *"I am Alpha and Omega, the first and the last…I am Alpha and Omega, the beginning"*
Isaiah 46: 9-10: *"Remember the former things of old: for I am God, and there is none else; I am God, and there is none like me, Declaring the end from the beginning, and from ancient times the things that are not yet done, saying, My counsel shall stand, and I will do all my pleasure"*
Malachi 3:6: *"For I am the Lord, I do not change"*
Isaiah 40:8: *"The grass withers, the flower fades, But the word of our God stands forever"*
* Bible English Standard Version (ESV), 2016

Temporal Relativity and the Divine Ratio

The Bible's account of time also offers fascinating insights into temporal relativity, paralleled by the concept of entropy. One aspect lies in the literal interpretation of the biblical day, which holds deeper implications beyond its conventional understanding. Scholars' analysis of the biblical day presents a striking revelation of a temporal divine ratio of 1:1000 in the Bible. This ratio is exemplified by Adam's death within a day after eating from the tree of knowledge and the unusually long ages of ancient men spanning multiple centuries. This divine ratio aligns with the concept of light's invariance, a scientific observation that remains constant regardless of one's frame of reference. Additionally, the ratio corresponds with the accelerating decay rate throughout human history, evidenced by an exponential biological decay curve and a decline in life expectancy due to genomic degeneration caused by mutation accumulation.

Genesis 2:17: *"But of the tree of the knowledge of good and evil, you shall not eat of it: for in the day that eat thereof you shall surely die"*
2 Peter 3:8: *"But, beloved, be not ignorant of this one thing, that one day is with the Lord as a thousand years, and a thousand years as one day"*
Psalm 90:4: *"For a thousand years in your sight are but as yesterday when it is past, and as a watch in the night"*
John 11:9: *"Are there not twelve hours in the day? If any man walk in the day, he stumbles not, because he sees the light of this world"*
Matthew 12:40: *"For as Jonas was three days and three nights in the whale's belly so shall the Son of man be three days and three nights in the heart of the earth"*
Genesis 1:14: *"And Elohim said: Let luminaries come to be in the atmosphere of the heavens to cause a separation between the day and between the night that they might be for signs, for appointed seasons, for days and years"*
* Bible English Standard Version (ESV), 2016

The biblical understanding of the divine day as equivalent to a thousand earthly years offers a profound insight into temporal relativity and the nature of human existence. By contemplating this divine ratio, it becomes evident that time itself is subject to divine influence, leading to a reversal of entropy and an eventual decline in human longevity. The present-day lifespan of most people, ranging from 70 to 80 years and rarely exceeding 100, stands as a testament to this reversed entropy and the impact of sin and human decisions on temporal existence.

Some researchers propose that the variations in biblical numbers may signify that humans were originally meant to be immortal, destined to live forever before the loss of this ancestral privilege through sin and the abuse of free will. Thus, the Bible's

genealogies may serve as symbolic representations of humanity's original divine design (Dill 2010; Fee & Stuart 2014; Penn 2017).

- **Adam**'s age: **930** years *(Genesis 5:5)*
- **Seth**'s age: **912** years *(Genesis 5:8)*
- **Enos**' age: **905** years *(Genesis 5:11)*
- **Cainan**'s age: **910** years *(Genesis 5:14)*
- **Mahalaleel**'s age: **895** years *(Genesis 5:17)*
- **Jared**'s age: **962** years *(Genesis 5:20)*
- **Enoch**'s age: **365** years *(Genesis 5:22–24)*
- **Methuselah**'s age: **969** years *(Genesis 5:27)*
- **Lamech**'s age: **777** years *(Genesis 5:31)*
- **Noah**'s age: **950** years *(Genesis 9:29)*

Einstein's theories of relativity further emphasize the intricate relationship between speed and time, with the constant speed of light being a fundamental aspect of an ever-expanding Universe. Similarly, ordinary individuals can reconcile the scientific measures of the Universe's age (around 13.7 billion years) and Earth's age (approximately 4.5 billion years) with the biblical arithmetic based on the divine ratio of 1:1000. This reconciliation demonstrates the remarkable correspondence between biblical wisdom and scientific discoveries. The Bible's portrayal of the Creation as a Divine Clock may symbolize the primal embodiment of the Solar System Clock, characterized by natural cyclicity and man's biological clock. The significance of the Sun for human life, as recorded in biblical passages, aligns with scientific theories on the paramount importance of the Sun as a life-giving force (Ball 2003; Carter 2018).

The biblical perspective on time thus also offers a rich tapestry of insights into temporal relativity, divine influence, and the consequences of human choices. The divine ratio of 1:1000 presents a profound understanding of time's mutable nature and its connection to the eternal divine. As humanity grapples with the passage of time and its implications, the Bible continues to be a timeless source of wisdom, inviting mankind to contemplate the intricate interplay between time, divinity, and human existence.

Memory and Religious Identity

Memory holds a significant role in shaping one's temporal axis and, consequently, their identity. Scientifically, the brain can be influenced to perceive imagined events as real experiences, enabling new generations to connect with the ancient journey of their ancestors. Culp (2020) highlights the unique treatment of false memory in the biblical book of Deuteronomy. Unlike other books, Deuteronomy commands and emphasizes the importance of memory in the community's life, particularly regarding the exodus

events. The book urges all generations, including the Moab ones, to keep these events in mind and remember them accurately. Deuteronomy thus serves as more than a mere sermon as it becomes a collective memory text, seeking to cultivate memory across generations (Kaiser et al. 1996). False memory, or mental time travel, plays a crucial role in creating religious identity. Using chronesthesia (Tulving 1985), future generations can identify with their community's key events, even if they were not present during those events. This religious journey fosters a connection between the past and the present, allowing the Moab people to cherish the moment and make decisions before the Lord.

Deuteronomy's link between past and present, as well as the celebration of religious events like the Last Supper, Christmas, Easter, and Saints' Days, exemplify forms of religious identification based on time traveling to events falsely experienced by each new generation of religious-oriented individuals. These celebrations create a divine wrinkle in time, transporting Christians back to significant moments of the past and forward to the future return of Christ while being in the present moment (Culp 2020; Grudem 1994).

Biblical time and memory thus intertwine in profound ways to shape religious identity. Deuteronomy's emphasis on memory as a collective practice and the celebration of religious events allow new generations to connect with their ancestral past and participate in significant historical events. These connections through time provide a sense of continuity, community, and spiritual identity, allowing individuals to experience a divine wrinkle in time as they stand before the sacred table, bridging the past, present, and future within their faith. By understanding the dynamic interplay between memory, religious experiences, and the perception of time, individuals can gain a deeper appreciation for the role of biblical narratives in shaping human identity and spirituality across generations.

Deut 5:15: *"Remember that you were a slave in the land of Egypt and the Lord your God brought you out of there"*
Deut 4:3: *"You saw with your own eyes"*
1 Cor 11:23-26: *"For I received from the Lord what I also passed on to you: The Lord Jesus, on the night he was betrayed, took bread, and when he had given thanks, he broke it and said, 'This is my body, which is for you; do this in remembrance of me.' In the same way, after supper he took the cup, saying, 'This cup is the new covenant in my blood; do this, whenever you drink it, in remembrance of me.' For whenever you eat this bread and drink this cup, you proclaim the Lord's death until he comes"*
* Bible New International Version (NIV), 2011

Perfect Nature of God's Creation

One of the most profound sections of the Bible that delve into the concept of time and its nature is the book of Ecclesiastes. Within its verses, Ecclesiastes explores the transient and errant nature of human life while emphasizing the perfect and timeless nature of God's dual creation. Through its poetic wisdom, the book touches on various themes, such as perfect timing, the cyclicity of nature, the vanity of the human mind, authenticity, and the acknowledgement of human weaknesses while aspiring to overcome them through penitence. The verses in Ecclesiastes illustrate the perfect marriage of psychological and universal time, showcasing the interplay of temporal distortion and recalibration within and beyond human physicality. The contrast between what is deemed good and what is considered bad or evil highlights the importance of human sincerity in acknowledging that there is a time and place for each duality and polarity in God's grand design. Furthermore, the biblical text emphasizes the significance of aligning the seed of eternity inside the human heart with the beauty of temporal linearity within the mind. This alignment would enable humans to once again recognize God's timelessness, a privilege that Adam experienced before his fall. This concept of timelessness, indirectly indicated by quantum mechanics through the intriguing power of the observer over quantum particles, reveals the profound influence of the observer's perception of reality (Botterweck & Ringren 1975; Bruce 1979; Pink 1972; Kugel 2007).

Ecclesiastes 3:1-8
"For everything there is a season, and a time for every matter under heaven: a time to be born, and a time to die; a time to plant, and a time to pluck up what is planted; a time to kill, and a time to heal; a time to break down, and a time to build up; a time to weep, and a time to laugh; a time to mourn, and a time to dance; a time to cast away stones, and a time to gather stones together; a time to embrace, and a time to refrain from embracing; a time to seek, and a time to lose; a time to keep, and a time to cast away; a time to tear, and a time to sew; a time to keep silence, and a time to speak; a time to love, and a time to hate; a time for war, and a time for peace. What gain has the worker from his toil? I have seen the business that God has given to the children of man to be busy with. He has made everything beautiful in its time. Also, he has put eternity into man's heart, yet so that he cannot find out what God has done from the beginning to the end. I perceived that there is nothing better for them than to be joyful and to do good as long as they live; also that everyone should eat and drink and take pleasure in all his toil—this is God's gift to man."
* Bible English Standard Version (ESV), 2016

In conclusion, according to the Bible, time recalibration involves embracing the acknowledgement of God's timelessness, perfect timing, and infinite patience with humanity's flawed nature. The transient nature of human life calls for a deeper understanding of God's grand design and purpose. To achieve mental peace and open

one's heart, the Bible teaches that God sent his only Son, made of human flesh, to lead by example. This act of divine intervention demonstrates God's love and compassion for humanity. Therefore, it is humanity's duty to entrust their personal journeys in God's hands, embracing the cyclicity of nature and capitalizing on the present moment. By aligning their hearts and minds with God's perfect timing, humans can find solace in the assurance that their lives are guided by divine providence. Time recalibration, as depicted in the Bible, is a transformative process that allows individuals to deepen their faith, seek spiritual growth, and find meaning in their life journeys.

Hebrews 2:16 ESV: *"For verily he took not on him the nature of angels; but he took on him the seed of Abraham"*
2 Peter 3:10 ESV: *"But the day of the Lord will come as a thief in the night; in the which the heavens shall pass away with a great noise, and the elements shall melt with fervent heat, the earth also and the works that are therein shall be burned up"*
Proverbs 16:9 ESV: *"The heart of man plans his way, but the Lord establishes his steps"*
James 4:13-15 ESV: *"Come now, you who say, 'Today or tomorrow we will go into such and such a town and spend a year there and trade and make a profit'— yet you do not know what tomorrow will bring. What is your life? For you are a mist that appears for a little time and then vanishes. Instead you ought to say, 'If the Lord wills, we will live and do this or that'"*
Jeremiah 29:11 ESV: *"For I know the plans I have for you, declares the Lord, plans for welfare and not for evil, to give you a future and a hope"*
Psalm 31:15 ESV: *"My times are in your hand; rescue me from the hand of my enemies and from my persecutors!"*
Proverbs 16:3 ESV: *"Commit your work to the Lord, and your plans will be established"*
Ephesians 1:10 ESV: *"As a plan for the fullness of time, to unite all things in him, things in heaven and things on earth"*
Colossians 4:5 ESV: *"Walk in wisdom toward outsiders, making the best use of the time"*
* Bible English Standard Version (ESV), 2016

"THERE'S A JOURNEY WE MUST GO ON, AND NO MORE DELAY…":

Literature serves as a powerful expression of the collective and individual subconscious, blurring the lines between reality and fiction as it intertwines what is known with what is yet to be discovered. Writers' own perceptions of time shape the inner temporality of their characters, and readers, in turn, may redefine their own temporal identity through the books they read.

In Kazuo Ishiguro's seventh novel, *The Buried Giant*, the narrative revolves around a physical journey with temporal goals, delving into the arduous pursuit of meaning through introspection and recollection of troubled pasts. The story unfolds in a society where people suffer from a peculiar collective amnesia induced by a mysterious mist

that shrouds the land. The protagonists, Axl and Beatrice, long for their forgotten memories and their lost son. Their journey becomes a quest for rediscovery and reconciliation, reflecting the universal human desire for identity and understanding. However, the selective memory of the community poses moral and safety concerns. The characters fear that recovering painful memories might jeopardize the harmony of their current relationship. The source of the magical amnesia is the cursed breath of Querig, a sleeping dragoness. Her presence symbolizes a faded memory in the collective mind, embodying the power of forgetfulness and the consequences of buried traumas (Russell 2021).

Amidst the search for memories, the novel explores the interplay of religion and time. Axl and Beatrice, devout Christians, seek redemption through reuniting with their past. Beatrice contemplates God's possible shame in forgetting humanity's actions, leading her to ponder the significance of memory and its link to divine forgiveness. The clash between Christian and pagan beliefs emerges when considering the ethics of forgiveness. While Christians rely on divine mercy and penance, the pagans advocate for a strict justice system, holding wrongdoers accountable for their actions. This contrast highlights the complex interplay between religion, morality, and the consequences of remembering or forgetting past atrocities. Sir Gawain's plight embodies the consequences of blindly following authority. He grapples with past decisions made in the name of God, eventually accepting the fog of oblivion as a way to cope with the consequences of misguided actions.

As the characters journey in search of lost memories, they face the reality that time is not an objective force but rather shaped by their experiences and emotions. The novel raises temporal truths, suggesting that regression in time often occurs due to traumatic experiences, and the past only catches up when stirred by present events (Ishiguro 2015; Călinescu 2023).

Ishiguro's novel masterfully weaves themes of time, memory, and religion into a haunting narrative. *The Buried Giant* thus explores the eternal human hunger for truth, driving people to seek buried memories, acknowledging that the buried giants of the past may rise again, potentially affecting the present and future. The characters' physical journey mirrors their internal search for lost memories, culminating in a profound exploration of human identity, reconciliation, and the consequences of remembering or forgetting the past. The novel challenges conventional notions of time and memory, leaving readers pondering the significance of their own journeys through the realm of the forgotten.

CONCLUSION

The exploration of temporality from scientific, psychological, biblical, and literary perspectives has revealed a profound interplay between human emotions, internal timekeeping, and perception. While each theory offers distinct explanations, they all converge on the understanding that time is deeply intertwined with the human experience. The distortion of time, when viewed through the lens of cooperation between temporal theories and psychotherapeutic fiction, can serve as a valuable tool for preserving human sanity and guiding choices and actions in the right direction. In the pursuit of comprehending time, scientific research, including Einstein's theory of relativity, has shed light on the intricacies of time dilation, the constant speed of light, and the Universe's expansion. Meanwhile, the Bible offers its own perspective on time, drawing connections between time relativity and the Divine Ratio, emphasizing God's timelessness beyond human comprehension. Quantum mechanics and the power of observation further highlight the intricate relationship between the observer and the forces of the Universe. Kazuo Ishiguro's literary approach in *The Buried Giant* exemplifies spatio-temporal mobility, as the characters grapple with the haunting of their past, rediscover their memories, and confront their emotional responses. The novel illustrates how the human mind retains selective impressions of the past, shaped by emotional peaks and significant events, rather than a detailed chronological account. Language, with its intricate interplay of words and meanings, often creates a relativity of expression and a mash-up of interpretations. Just as the characters in *The Buried Giant* grapple with the haunting echoes of their past and the selective nature of their memories, so too does humanity confront the complexities of time through a diverse lens of understanding. This linguistic interplay reminds humankind that the comprehension of time remains an ever-elusive quest, and, like the Tower of Babel, leads to a multiplicity of expressions that mirrors the vastness and mystery of time itself.

As Ecclesiastes 3:11 suggests, humanity may never fully comprehend the seed of eternity and the beauty of all human times, but embracing the power of now and rejoicing in the present moment allows for a deeper connection with existence. Ultimately, time remains an enigma, offering both challenges and opportunities for humanity. As individuals and societies navigate the passage of time, it is essential to recognize the significance of memories and emotions in shaping their temporal identities. The study of time thus serves as a reminder of the intricate web of connections that weave people's stories, beliefs, and understanding of the Universe. Through cooperation and an open heart, humanity can harness the value of time distortion, using it as a guiding force to preserve sanity while navigating the complexities of life and finding solace in the higher power that transcends all temporal limitations. The journey to grasp the essence of time

may never find its ultimate conclusion, but by embracing the present and cherishing each moment, humans can find a path to peace and fulfillment amidst the ever-flowing river of time.

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