



PARADOXES AND POSSIBILITIES: A CRITICAL EXPLORATION OF TIME TRAVEL IN H.G. WELLS' *THE TIME MACHINE*

Mrs. Abinaya. C, Dr. Jeyalakshmi. S

Ph. D Scholar, Associate Professor,
Department of English,

Hindusthan College of Arts & Science, Coimbatore, India

Abstract: Time travel has always fascinated people because it challenges how human beings think about time and reality. This article manages the idea of time travel applying by H.G. Wells' book, *The Time Machine*. It talks about the complicated ideas in time travel stories and trace out what could actually happen. Einstein's theory of relativity says, time travel might be possible, but humans still can't apply it because they don't have the right technology. Wells' *The Time Machine* is one of the first stories, which really explore time travel, showing both the exciting things it could bring and the problems it might cause. Even though science has advanced, time travel is just an interesting factor in the stories because there are still big deals. The article underscores the enduring fascination with time travel and its implications, paradoxes and possibilities for the time travel concept.

Keywords: Time travel, Einstein's theory, technology, reality and paradoxes

Introduction

Paradoxes refer to situations or events in the realm of time travel that create logical contradictions or inconsistencies. These paradoxes challenge humans' understanding of cause and effect, introducing scenarios where actions in the past influence the future in ways that defy conventional logic. One well-known concepts of the French journalist, Rene Barjavel's 'Grandfather Paradox' tells that a time traveller potentially prevents his own existence by altering a past event involving their ancestor. Paradoxes frequently ignite philosophical discussions regarding time's essence and the potential to change the past without triggering logical contradictions, introducing intricate dimensions to the concept of time travel.

Possibility refers to the concept that an event or state of affairs which could occur at some point in time, given the dynamic nature of temporal sequences. It embodies the idea that certain outcomes or scenarios are feasible within the framework of time, taking into account of various conditions, developments, and potential changes. Possibility acknowledges the evolving nature of circumstances and the potential for different realities to manifest over time, allowing for a flexible understanding of what could transpire in the temporal continuum.

A Critical Exploration of Time Travel

In the story, *The Time Machine*, the time traveller who is the protagonist, along with his friends discusses about the space and its three dimensions 'Length, Breadth, and Thickness' pensively. But he reveals the fourth dimension 'Time'. Then he shows his miniature time machine which creates a talk of doubt intermittently and makes it disappear. The novel, *The Time Machine* portrays its protagonist as an inventor of the time traveller, to move forward and backward in time, experiencing different eras and witnessing the evolution of the world. Wells presents the time concept as the final aspect, specifying a spatial correlation inside three-dimensional space across the temporal dimension.

‘Really this is what is meant by the fourth Dimension, though some people who talk about the Fourth Dimension, though some people who talk about the Fourth Dimension do not know they mean it. It is only another way of looking at Time. There is no difference between Time and any of the three dimensions of Space except that our consciousness moves along it. But some foolish people have got hold of the wrong side of that idea. You have all heard what they have to say about this Fourth Dimension?’ (TTM 11)

People confide time travel is possible, but no one gives proper proof for that. At present, human beings do not have that much-advanced equipment to do. There was a professor named Stephen Hawking invited for The Time Travel Party at the University of Cambridge Gonville & Caius College, Trinity Street, Cambridge, dated 28th June 2009 and the longitude and latitude also included to indentify the place. Nevertheless, there is no one to come to that grand party yet. Thus, he proves that there is no time traveller still. The purpose of analyzing the topic is to explore the possibilities and paradoxes, engaging in a critical examination of time travel through H.G. Wells' *The Time Machine*.

However this is impossible, but in Wells' novel the time traveller finds a time machine and travels to future. The machine stops many years. At last, the machine stops in the year 802,701, in where humanity splits into two bizarre races: the surface-dwelling Eloi and the subterranean Morlocks. He saves a life of Eloi named Weena and befriend with her. In the meantime, he lost his time machine. “But it was the lawn. For the white leprous face of the sphinx was towards it. Can you imagine what I felt as this conviction came to me? But you cannot. The Time Machine was gone!” (52) He starts to search his machine but it's invisible. He searches it like a child, “Where is my Time Machine?” (54)

According to Albert Einstein, the chance of time travel exists. However, it is important to note that such travel is limited to the future. If an object or a person can move at the speed of light, it is possible to travel in future. The main problem is, people are assuming to travel through time to illuminate their present life. They wish to see the future. At present which is impossible, because the exact speed of light per second is 29, 97, 92, 458 metres, which means per second it is 3, 00,000 kilometres. If a human being or any object can accelerate in the speed of light, they can travel through time. But it is not possible because if really, human beings find the machine in the speed of light and one is travelling in that, cannot assume what are the problems would happen to their body and mind, because of the speed once human body will be faint and collapsed.

Every day, people watch the Sun and the Moon. In fact, human beings are watching the past through it, because the Earth is 1.5million kilometre away from the Sun. It is the fact that the sunlight takes minutes 20 seconds to reach Earth. The moon takes 11 minutes 2 seconds to reach. Thus, everyone is watching the past as present and can consider it as a kind of time travel. In *The Time Machine*, Wells explains about what are the things he could see while travelling through time, like ‘the slowest snail moves very fast’. The night and day changes continuously due to the velocity. Consequently, he feels complete palpitation. The moon's rapid fluctuation surprised and shocked him. The solstice comes only two times in a year, however, he sees both one by one in a minute or less than it does.

Presently I noted that the sun belt swayed up and down, from solstice to solstice, in a minute or less, and that consequently my pace was over a year a minute; and minute by minute the white snow flashed across the world, and vanished, and was followed by the bright, brief green of spring. (32)

The separation of humanity in the Eloi and Morlocks presents a paradox of social evolution. The Time Traveller witnesses a future where humans have evolved into two distinct species with opposing characteristics. This raises questions about the cause and effect relationship between social structures and evolutionary outcomes. Through the narration, Wells explains the societal discrimination too.

The time traveller and Weena go to the forest in search of his machine, but despite their efforts, they are unable to locate it. Faced with this dilemma, he contemplates leaving the sphinx behind, engaging in a conversation with himself. He puzzles about his future. Anyhow he relies that he will find the machine. Even though the story comes under the genre fiction, Wells writes with genuine feelings of human beings.

“Patience,” said I to myself. “If you want your machine again you must leave that sphinx alone. If they mean to take your machine away, it's little good your wrecking their bronze panels, and if they don't, you will get it back as soon as you can ask for it. To sit among all those unknown things before a puzzle like that is hopeless. That way lies monomania. Face this world. Learn its ways, watch it, be careful of too hasty guesses at its meaning. In the end you will find clues to it all.” (58-59)

Time travel idea brings up paradoxes, like the famous 'Grandfather Paradox.' If one imagines that going back and preventing his grandfather to marry his grandmother, the entire family and its off springs would never born. This creates a loop without a clear beginning. Another paradox is Robert Heinlein's 'Bootstrap Paradox'. If one gets going back, giving manuscripts of Shakespeare's plays to Shakespeare himself in advance, a copy of his own works, what would happen? Again this loop lacks a clear origin too.

Wells' *The Time Machine* is a groundbreaking novel about time travel. After his work, time travel becomes a captivating theme in English Literature. In his work, the protagonist invents a device that allows him to traverse through time, providing a lens through which he witnesses the distant future. The story comes under the imagination of the author Wells. "The history of flight is peppered with mishaps, failures and fatalities by the humans who tried to take to the skies. In their efforts to understand the mechanics of flight, would-be inventors mostly tried to mimic the anatomy of birds" (John Fuller). Before finding aircraft, human beings decided to fly for that, they attempted a lot.

In spite of several attempts, the first recorded human flight attempted on 850 B. C. to Troja Nova, or New Troy. Finally, the Wright Flyer, which was built in 1903, was the result of four years of research and development by Wilbur and Orville Wright. On December 17, 1903, it took off from Kitty Hawk, North Carolina, with Orville at the controls. In Hindu mythology, Ramayana, the antagonist named Ravana used flying machine which is 'Pushpaga Vimanam' to go all the places. He flew everywhere. Before finding the airplane, finding flying machine is like fantasy. However, nowadays human beings never disagree the concept.

The Time Traveller and Weena start walking, but when they get near the woods, they hear the Morlocks behind them. To keep the Morlocks away, the Time Traveller makes a fire using camphor and dry brush. They walk fast, but soon, Morlocks surround them. The Time Traveller puts Weena down briefly to get a match from his pocket and start another fire. She faints, so he picks her up again and moves to a different spot. Realizing he's lost, he decides to camp for the night. Sitting by the fire, he falls asleep. "Looking at these stars suddenly dwarfed my own troubles and all the gravities of terrestrial life." (88)

In the Hindu mythology, the Vishnu Purana refers to the narrative of Ruler Raivata Kakudmi, who goes to paradise to meet the Maker Brahma and is shocked to realize when he gets back to Earth that many ages have passed. Therefore, Raivata Kakudmi the researcher did time travel. To prove it true, scientists are trying to do time travel. Likewise nowadays scientists are attempting to find the time travel machine too.

In the story, the protagonist wakes up to find the Morlocks grabbing at him. He fights back with his steel bar and manages to kill some of them. Thus, the remaining Morlocks flee from him. He then notices that the fire he started earlier has grown into a massive blaze. Despite searching, he can't find Weena. He determines to find her; he follows the fleeing Morlocks, eventually emerging onto a hillside, where the Morlocks are blinded by the intense light and heat from the fire. Unable to reach Weena, the protagonist decides to return to the statue.

After arriving at the sculpture, he is astounded to find the platform open, uncovering his time machine inside. Although he suspects it might be a trap set by the Morlocks, but he has to enter into the machine anyway. As he anticipated, the panels of the pedestal close behind him. Realizing he has lost his matchbox, he tries to use a match against other surfaces but fails. The Morlocks attack him, but he successfully enters his machine, activates the forward lever, and propels himself forward. "But as I walked over the smoking ashes under the bright morning sky, I made a discovery. In my trouser pocket were still some loose matches. The box must have leaked before it was lost". (109)

'The Butterfly Effect' in chaos theory highlights how minor events can cause widespread, unpredictable outcomes, emphasizing the sensitivity of complex systems to initial conditions. It symbolizes the notion that small changes in one area can result in significant and sometimes dramatic consequences in another. In the context of time travel and storytelling, the 'butterfly effect' is often explored to depict how small actions in the past can have profound and unpredictable consequences in the future. This concept is closely tied to the idea that altering even minor details in the past could lead to significant changes in the present and future. It is a basic example to illustrate the butterfly effect:

If one imagines, a driver is running late for work and decides to take a different route, making a seemingly inconsequential choice to turn left instead of right at an intersection. The driver's decision to turn left alters the flow of traffic at that intersection. The cars would have been behind the driver if they have turned right are delayed or take different routes. The small change in traffic flow at that one intersection ripples through the entire system. Cars that are initially behind the driver then interact with other vehicles in a way that would not have happened if the initial turn has been different. The changes in traffic patterns may lead to delays, affect signal timings at subsequent intersections, and affect the overall congestion on the

road. Because of the driver's initial choice, there could be a cascade of effects, with delays and altered traffic patterns affecting many other drivers who are not directly involved in the initial decision.

The butterfly effect is the concept that small changes in the initial conditions of dynamic systems which have large and unpredictable consequences over time. There are lot of movies use the concept. For instance in Tamil movies like, *Indru Netru Naalai* (2015), *24* (2016), *Dikkilona* (2021), *Mark Antony* (2023) and so on. Especially people are welcoming the movies. The book, *The Time Machine* is written by H.G Wells and is taken as movie at first in film industry and won an Oscar for the best visual effects. According to Butterfly effect theory, suppose human beings go to the past and do something in different manner definitely it will affect the present and future. This concept is clearly explained in these movies too.

In *The Time Machine*, the time traveller crossed the ethical boundaries, which is unnatural in the world. The innocent people are thinking to travel through time and planning to correct their past. In reality, after that main the issues would emerge. According to the butterfly effect, if the time traveller goes to the past and changes something, definitely it will affect the present and future. No one can guess whether the changes will be positive or negative.

In the novel, Wells proves that no human gets satisfied if he traverses once through time. After returning to the present life, he explains everything to his friends. Except the narrator, no one believes it. The next day again he travels through the time machine. At the end, the narrator worries that the time traveller doesn't return. The narrator says, "But I am beginning now to fear that I must wait a lifetime. The Time Traveller vanished three years ago. And, as everybody knows now, he has never returned". (127)

When people start to use time travel, they get prevention but they cannot change things. For instance, a person who gets insult from another may change the entire incident but the experiences that he gets from the insult would not give him the maturity and the power of handling issues. Consequently, he will get success after the worst experience. However, if the person plans to use time travel, definitely he tries to reverse the incident. Therefore, he is not going to get experience as well as success. If a character travels back in time and inadvertently alters a key event, it can lead to a chain reaction of unintended consequences. This alternation might create an alternate timeline, where the future unfold differently, causing challenges such as to historical events, the disappearance of certain individuals, or the emergence of unexpected circumstances. The theme 'time travel' is often explored in various science fiction works and serves as a source of tension and complexity in the storytelling.

Because of time travel, everyone gets thrilling excitement. No one is going to get satisfy, because everything brings problem, on that time that person plans to change it again. For instance, if one imagines that a person does time travel to get rid of the present problem, he will get another problem and decides to change it again. Therefore, it is a spontaneous thing to change the present repeatedly which shows the person does not even think to move into the future. It urges men to go backward rather to know the future.

The novel presents time as a persistent and interconnected stream, testing the regular direct impression of past, present, and future. The time traveller's observations of future societies, such as the Eloi, and Morlocks, serve as critiques on class divisions and societal structures. Through the story Wells makes sense of his contemporary issues.

At first, proceeding from the problems of our own age, it seemed clear daylight to me that the gradual widening of the present merely temporary and social difference between the Capitalist and the Labourer, was the key to the whole position. No doubt it will seem grotesque enough to you-and wildly incredible!-and yet even now there are existing circumstances to point that way. (71)

H. G. Wells is the first person who introduces time travel concepts through machines. The time traveller uses the liver to travel through time. If he moves up, it goes to future, or moves down to go to the past. Nevertheless, before it, there are some mythologies also about the time travel. Nowadays there are no possibilities to travel through time, because human beings are not yet well advanced. However, in future, if the scientists find the time travel machine, human beings will get both pros and cons. One side the beneficial things will occur and another side the awful things will occur. It is just like a coin, which has two faces. It provides the opportunity to learn from the past and apply that knowledge to shape a better future.

The power of time travel could be misused for personal gain, manipulation, or altering events for selfish reasons. For instance, of one considers a time traveller who decides to prevent a historical disaster like Corona or Tsunami by altering a key event. The positive outcome might be the prevention of tragedy, saving lives and improving the course of history. However, the unintended consequences could include creating a new timeline with unpredictable changes, potentially leading unforeseen disasters or anticipated. This example illustrates the complex interplay of positive and negative associated with time travel.

On the positive side, time travel opens the door to unparalleled exploration and understanding. The concept allows for firsthand experiences of historical events, providing unique insights into the evolution of

civilizations. Scientifically, the notion of traversing time introduces exciting prospects for technological advancements, as exemplified by Wells' time machine, a groundbreaking invention that symbolizes human ingenuity.

Summation

To sum up, while *The Time Machine* is a seminal work that laid the foundation for time travel in literature, the narrative's treatment of time travel differs significantly from the current scientific understanding. The novel's exploration of social and existential themes, along with its imaginative storytelling, remains a hallmark of speculative fiction.

When human beings think about time travel and the tricky issues it brings, they are entering a fascinating world where science fiction meets scientific ideas. Paradoxes, like the 'grandfather paradox' and 'bootstrap paradox' make everyone question how things happen, our choices, and even our existence. They add a layer of complexity to the idea of time travel, highlighting the deep mysteries in the way time works. Looking at H.G. Wells' famous book, *The Time Machine*, human beings see how the interest in exploring time has been influenced their day-to-day life. Wells not only made time travel a popular concept but also made everyone think about how it could affect societies.

Scientists constantly continue to research on this. The actual chances of time travel remain uncertain, tied up with the unsolved puzzles of modern physics. The journey to understand these mysteries goes on, inviting everyone to think about the big impact of messing with the time travelling concepts. At the end of the story, the protagonist takes the reader into a world where past, present, and future mix in a mysterious way. The article highlights this fact with meticulous observation which is emphasized in the story of H.G.Wells.

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