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**PARADOX HAVOC: Time Travel in Gothic Science
Fiction**



ARARAQUARA – S.P.
2023

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Master's thesis presented to the Board of the Program of Estudos Literários from Faculdade de Ciências e Letras – Unesp/Araraquara, in order to obtain the title of Master in Estudos Literários.

Line of Research: Teorias e Crítica da Narrativa

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To myself — past, present, and future.

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“When the past is always with you, it may as well be present; and if it is present, it will be future as well”.

Jack Womack (2000, p. 300)

ABSTRACT

This research aims to analyze the paradoxes of time travel in Gothic Science Fiction in order to question our hypothesis: the Bootstrap Paradox is present in determinist tales of a more pessimistic vein, because the past cannot be changed, only perpetuated; the Grandfather Paradox, present in indeterminist tales of a more optimistic vein, because the past *can* be changed, therefore tragedies, for example, can be avoided or fixed. We will be looking at a myriad of different fictional texts from different mediums — short stories, novels, films, television, and video games. In particular: Hajime Isayama's manga series *Attack on Titan* (2009-2021), Connie Willis' novel *To Say Nothing of the Dog* (1998), two episodes of BBC's *Doctor Who* (1963-1989; 2005-) — “The Day of the Doctor” (2013), and “Heaven Sent” (2015), Ken Levine's *Bioshock Infinite* (2013), Tatsuya Matsubara's *Steins;Gate* (2009), and James P. Blaylock's *Lord Kelvin's Machine* (1992). Therefore, the present research indulges in the practice of comparative literature. Likewise, we are going to be drawing from the critical writings of scholars such as Fred Botting, David Wittenberg, Brian Aldiss, Adam Roberts, James Gleick, and the like — specialists from the fields we are studying (time travel fiction, Science Fiction, and Gothic literature).

Keywords: Paradox; Time Travel; Science fiction; Gothic.

RESUMO

A presente pesquisa tem por objetivo analisar os paradoxos da viagem no tempo na literatura de Ficção Científica Gótica para questionar a nossa hipótese: o Paradoxo Ontológico está presente em histórias deterministas de uma veia mais pessimista, porque o passado não pode ser mudado, somente perpetuado; o Paradoxo do Avô, presente em histórias indeterministas, pois o passado *pode* ser mudado, então tragédias, por exemplo, podem ser evitadas ou consertadas. Iremos trabalhar com diversos textos ficcionais de diversos tipos de mídias — contos, romances, filmes, televisão, e vídeo games. Em particular: a série de mangá *Ataque dos Titãs* (2009-2021) do Hajime Isayama, o romance *To Say Nothing of the Dog* (1998) da Connie Willis, dois episódios da série *Doctor Who* (1963-1989; 2005-) da BBC — “The Day of the Doctor” (2013), e “Heaven Sent” (2015), o vídeo game *Bioshock Infinite* (2013) do Ken Levine, o vídeo game *Steins;Gate* (2009) do Tatsuya Matsubara, e o romance *Lord Kelvin’s Machine* (1992) do James P. Blaylock. Portanto, a presente pesquisa faz uso da prática da literatura comparada. Com isso, iremos buscar apoio na escrita crítica de diversos pensadores, como Fred Botting, David Wittenberg, Brian Aldiss, Adam Roberts, James Gleick, e outros — especialistas nos campos relevantes para a nossa pesquisa (ficção de viagem no tempo, Ficção Científica, e literatura Gótica).

Palavras – chave: Paradoxo; Viagem no tempo; Ficção Científica; Gótico.

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1. INTRODUCTION

The genesis of this thesis was presented to the Programa de Pós-Graduação em Estudos Literários in its selective process phase. The impetus behind this research was to investigate the connective tissue between Gothic and Science Fiction, specifically in various works of time travel Science Fiction. However, our goal has slightly changed, because our interest lies in analyzing the paradoxes of time travel fiction, in particular the ones that are most commonly found in pop culture: the Bootstrap Paradox and the Grandfather Paradox. Our prime hypothesis is that the Bootstrap Paradox is present in determinist tales of a more pessimistic vein, because the past cannot be changed, only perpetuated; the Grandfather Paradox, present in indeterminist tales of a more optimistic vein, because the past *can* be changed, therefore tragedies, for example, can be avoided or fixed.

This research does not bind itself to one specific fictional work, or one specific fiction writer. Instead, it aims to discuss a myriad of disparate works, comparing and contrasting how each text works with these paradoxes. In this way, our thesis indulges in the practice of comparative literature. Mainly, we picked each object of analysis based off of our own personal enjoyment. This made the composition of the following three chapters a pleasant affair.

Chapter one is entitled “Time Oddity: Gothic, Science Fiction, and the Paradoxes of Time Travel”. Therefore, we start our research by talking about the Gothic. Then, we talk about Science Fiction. After this, we present to the reader the counter-intuitive connection between these two things. Because their connections are plentiful, we have joined them as one — Gothic Science Fiction, a more specialized type of Science Fiction, related to dark aesthetics, and a little more arcane and fantastical as well. After that, we tackle the paradoxes of time travel fiction, which we look at in the classic manner that American philosopher David Lewis looks at them in his influential article “The Paradoxes of Time Travel” (1976). In this chapter, specifically, we are looking at the Predestination Paradox, the Bootstrap Paradox, and the Grandfather Paradox. We go about explaining how each paradox works by already analyzing several fictional texts in order to illustrate them, presenting them to the reader in a more dynamic fashion.

Chapter two is entitled “Heroic Conservation: The Bootstrap Paradox”. In it we focus on the topic of narrative conservation, particularly on the archetype of the hero as an element that seeks to preserve things as they are. This, we argue, is directly connected to the concept of the Bootstrap Paradox. The main texts we work with in this chapter are Hajime Isayama’s

manga series *Attack on Titan* (2009-2021), Connie Willis' novel *To Say Nothing of the Dog* (1998), and two episodes of BBC's *Doctor Who* (1963-1989; 2005-) — “The Day of the Doctor” (2013), and “Heaven Sent” (2015).

Chapter three is entitled “Troubleshooting Past Life: The Grandfather Paradox”, and its focus is on narratives that work with the concept of trying to rewrite time in order to avoid tragedies — the death of loved ones in particular. The analytical focus in this chapter lies with Ken Levine's *Bioshock Infinite* (2013), Tatsuya Matsubara's *Steins;Gate* (2009), and James P. Blaylock's *Lord Kelvin's Machine* (1992). We close off by mentioning David Gerrold's *The Man Who Folded Himself* (1973), which stands in stark contrast to David Lewis' view of the paradoxes of time travel, a trait that leads us to a dark vision of a world affected by the Grandfather Paradox.

2. TIME ODDITY: GOTHIC, SCIENCE FICTION, AND THE PARADOXES OF TIME TRAVEL¹

Gothic literature, as Fred Botting famously asserted, is characterized by the exploration of *negative* aesthetics. Popping up in the eighteenth century, its narratives deal with topics considered uncivilized, primitive, vulgar, uncouth, and overall improper by a society whose ideals are dominated by the Enlightenment. Irrationality, superstition, vulgarity, decadence, and everything that is negative are its fodder. *Darkness*, as opposed to the light of rationality, therefore, is the principal trait of the Gothic mode.

If knowledge is associated with rational procedures of enquiry and understanding based on natural, empirical reality, then Gothic styles disturb the borders of knowing and conjure up obscure otherworldly phenomena or the “dark arts”, alchemical, arcane and occult forms normally characterized as delusion, apparition, deception (BOTTING, 2014, p. 2, author’s emphasis).

We referred to the Gothic as a mode and not a genre because it is still present in contemporary literature. The Gothic is often “applied to forms as diverse as the psychological novel, not to mention various Science Fiction genres” (FOWLER, 1971, p. 214). Literary genres are, for their part, “closely linked to specific social forms, [and] is apt to perish with them. But the mode corresponds to a somewhat more permanent poetic attitude or stance, independent of particular contingent embodiments of it” (FOWLER, 1971, p. 214). With that in mind, we opt to deem both Gothic and Science Fiction as hybrids of genre and of mode. Despite not being limited to the historical classification of either genre or form — therefore denoting broader literary methods —, Gothic and Science Fiction are still connected to the particulars of genre, and so *genre-mode* seems, to us, the most appropriate classification for them.

Science Fiction literature seems, at first, to be in direct opposition to the Gothic, once its most popular texts all involve the same, to use Ernst Bloch and Darko Suvin’s terminology, *novum*: spaceships, terraforming, intergalactic communication, robotics, and the like. In other words, stories that explore hypothetical *new things* that can be said to exist, at least theoretically, via the *scientific method*. The main difference, then, between Science Fiction and Fantasy lies in the former’s usage of the scientific method, and the latter’s usage

¹ An earlier version of this chapter has been published in *Revista Literartes*, n. 15, 2021, p. 243-260, under the title “Time Oddity, Paradoxes and the Gothic”.

of *magic* — substituting, then, Science Fiction’s aesthetic positivism for older, rather chimerical systems of belief.

These *new things* are necessarily tied to positive aesthetics, once they assume, for example, humanity’s survival despite the looming threat of apocalyptic environmental changes. They also presume that humanity is not alone in the universe and, to further their optimism, our peaceful communication with alien species despite constantly being at war with our own kind.

The Gothic, conversely, in its most common definition², is tied to a return to the past — especially the Medieval times and the Reformation and Counter-Reformation moments —, to *old things*, to a *vetus*: ancient ruins, abandoned castles, hauntings, curses, superstition, wilderness, sexual deviancy, monstrosity, and the like.

Gothic texts are, overtly but ambiguously, not rational, depicting disturbances of sanity and security, from superstitious belief in ghosts and demons, displays of uncontrolled passion, violent emotion or flights of fancy to portrayals of perversion and obsession. [...] Gothic texts are not good in moral, aesthetic or social terms. Their concern is with vice: protagonists are selfish or evil; adventures involve decadence or crime. Their effects, aesthetically and socially, are also replete with a range of negative features: not beautiful, they display no harmony or proportion. Ill-formed, obscure, ugly, gloomy and utterly antipathetic to effects of love, admiration or gentle delight, Gothic texts register revulsion, abhorrence, fear, disgust and terror (BOTTING, 2014, p. 2).

But Science Fiction is not only made up of scientific melodramas or space operas. It constitutes a far larger breadth of texts, such as the famous pessimistic dystopias of George Orwell and Margaret Atwood — worlds depicting futures dictated by fascist governments where the individual has lost many of their rights. These dystopian futures have a stark contrast to the shiny ones of *Star Wars* (1977-2019) and *Star Trek* (1966-1969), where humanity has terraformed other planets and become friends with aliens.

The Gothic, on the other hand, has managed to taint even Science Fiction’s most positive assumptions — space opera’s quintessential work, George Lucas’ *Star Wars*, already carries, in its title, the negative aesthetics of warfare. In Brian Aldiss and David Wingrove’s *Trillion Year Spree* (1986), the argument that Mary Shelley’s Gothic novel *Frankenstein* (1818) created the specter of Science Fiction is introduced: “*Frankenstein* marked the beginning [of Science Fiction] and Science Fiction is a Gothic offshoot” (2001, p. 8). This

² We are referring to David Punter’s *The Literature of Terror, Vol. 1* (1996), in whose third chapter, “The Classic Gothic Novels” (p. 54-86), the works of Ann Radcliffe and Matthew Lewis are analyzed.

means that the literary genre-mode that explores the Enlightenment of science, rationality, human progress and technology comes from a contradictory type of artistic expression. However,

Gothic can be a function of a particular kind of dreadful narrative voice bespeaking either overwrought affect, paranoiac sensibility or perverse emotional deadness. As such, the Gothic genre-mode can readily be deployed in representations of believable worlds following natural laws (ALDER; WASSON, 2011, p. 3).

With this, the line on the sand drawn between Gothic and Science Fiction is, at least slightly, erased, making their relationship more porous and complex. The fact that the Gothic is related to issues of the past and Science Fiction to issues of the future seems to distinguish them. However, this can also be easily refuted. For example, let us look at the figure of the monster. First, what we mean by the term is that monsters are alienated subjects of abjection:

There looms, within abjection, one of those violent, dark revolts of being, directed against a threat that seems to emanate from an exorbitant Outside or inside, ejected beyond the scope of the possible, the tolerable, the thinkable. It lies there, quite close, but it cannot be assimilated. It beseeches, worries, fascinates desire, which, nonetheless, does not let itself be seduced. Apprehensive, desire turns aside; sickened, it rejects. [...] But simultaneously, just the same, that impetus, that spasm, that leap is drawn toward an elsewhere as tempting as it is condemned. Unflaggingly, like an inescapable boomerang, a vortex of summons and repulsion places the one haunted by it literally *beside himself* (KRISTEVA, 1982, p. 1, our emphasis).

So, monstrous beings are shunned and repressed by non-monstrous ones. However, repression does not guarantee freedom from whatever has been repressed. In fact, the repressed always comes back. Like Frankenstein's monster, who comes back to his creator's life to ask him the same question he had read in "Book Ten" of *Paradise Lost* (1667), lines 743-746, "Did I request Thee, Maker, from my clay/ To mold me Man? Did I solicit Thee/ From darkness to promote me or here place/ In this delicious garden?" (MILTON, 2005, p. 250). In other words, the monster asks its creator, *Why did you make me?*

The creator's answer, of course, would never satisfy its creature because Frankenstein created his hideous progeny out of his own selfishness and megalomania. The monster does not ask for Frankenstein's love, though. Instead, he asks Victor to make him a female companion, so as not to be alone. Once denied this, the monster promptly destroys all of its creator's companions, so as to give Frankenstein a taste of his own medicine. Ironically, this

series of unfortunate events gives both creator and creature a *raison d'être*: to torture each other until one of them dies. With this being said,

Monsters are our children. They can be pushed to the farthest margins of geography and discourse, hidden away at the edges of the world and in the forbidden recesses of our mind, but they always return. And when they come back, they bring not just a fuller knowledge of our place in History and the History of knowing our place, but they bear self-knowledge, *human* knowledge — and a discourse all the more sacred as it arises from the Outside. These monsters ask us how we perceive the world, and how we have misrepresented what we have attempted to place. They ask us to reevaluate our cultural assumptions about race, gender, sexuality, our perception of difference, our tolerance towards its expressions. They ask us why we have created them (COHEN, 1996, p. 20, author's emphasis).

The main difference between Gothic and Science Fiction is their approach towards the unknown. The way that the Gothic treats it, is as a foreboding harbinger of chaos, this being the main theme in *Frankenstein*, for example, where science is a tool to discover the unknown, but when in the hands of fallible humans, it may just become a destructive weapon. Science Fiction, on the other hand, approaches the unknown as an opportunity to reach new knowledge, new frontiers through science, as seen in *Star Trek*.

Science being the tool for the creation of monstrosity, in *Frankenstein*, is a clear refutation of the previous assumption that the Gothic is limited to the past. In fact, “monstrosity appears in the future and the past, in the mind and in culture at large, taking form in individual, social and textual bodies” (BOTTING, 2008, p. 131). This makes sense because life can never be devoid of conflict, heartbreak, fear, regret, and negativity in general. Then, to state that the difference between Gothic and Science Fiction is due to *time* implies that the future is totally devoid of any sort of problem, which is ludicrous. Besides, Science Fiction does not have to be set in the future. “Alternative History *steampunk* Science Fiction, for example, unsettles the notion that Science Fiction always occurs in a future world” (ALDER; WASSON, 2011, p. 4, authors' emphasis).

Tim Powers wrote that

Though there were precursors, books by Ronald Clark and Michael Moorcock and Harry Harrison, it was [K. W.] Jeter's *Morlock Night* in 1979 that really started it all — all the books and movies about extraordinary gentlemen in capes and top hats scurrying through foggy night-time London on secret errands that involve infernal devices and wonderful machines with elaborate scrollwork on the gears and levers (2011, p. 7-8).

Jeter's novel works as a direct sequel to H. G. Wells' *The Time Machine* (1895), where the cannibalistic, future human race of the Morlocks got their hands on the time machine, killed its traveler, and went back in time to Victorian London. Their goal, to put it simply, is that of cannibal colonialism — they want to enslave people and to eat them too. Our hero, Edwin Hocker, in chapter two, is dropped into a dystopian, war-torn vision of a future world where the Morlocks achieved their goal. Evidently horrified and about to die, the strange Doctor Ambrose saves him (and his female companion that he met in his struggles). It turns out that Ambrose is a devious magician who can toy with the chronology of time. But Hocker was put through the ringer only because that was the only way that Ambrose could think of to quickly dispel the protagonist's Victorian, enlightened cynicism. At the end of chapter two he wonders, "What evil design of Providence could have thus doubled Creation upon itself, like a snake devouring its own tail?" (JETER, 2011, p.53). What follows is a race against time to find Excalibur and to return it to a reincarnated King Arthur, so he can destroy the Morlocks and the time machine to save England's future.

I believe it was early in 1976 that Roger Elwood told K. W. Jeter, Ray Nelson and I that a British publisher wanted a series of ten books based on the idea of King Arthur being reincarnated throughout the centuries, obligingly reappearing whenever England needed rescuing (POWERS, 2011, p. 8).

It is common for Arthurian novels to be retellings, such as T. H. White's *The Once and Future King* (1958), but not only that, they are mostly thought of as having firm standing under the label of Fantasy. And yet here we have an example of an Arthurian novel that fits in Science Fiction, even though its narrative and narrator are related to the past, and magic is a part of the tale as well. In fact, works of steampunk fiction — a term coined by Jeter himself — rightfully explore bold juxtapositions of seemingly disparate elements.

People sometimes assume that steampunk is an offshoot of "cyberpunk", taking the high-tech future-noir adventure of the sort popularized by Bruce Sterling and William Gibson and moving the action back to a steam-powered nineteenth century. In fact steampunk fiction predates cyberpunk (though the name does not). [...] Science Fiction historians locate the origins of steampunk in three novels: Jeter's *Morlock Night*, Tim Powers' *The Anubis Gates* (1983) and James P. Blaylock's *Homunculus* (1986). In all three novels, Gothic excess takes the place that is occupied by the conventions of "detective fiction noir" in cyberpunk itself (ROBERTS, 2011, p. 330-331, author's emphasis).

Interesting to note here is that both Jeter and Powers' novels are works of time travel fiction. The content mirroring its genre — steampunk imagines futures that never were; retrofuturism, visions of the future from the past created in the present. The time paradox present in the genre lends itself nicely to the composition of time travel fiction. In both, the past and the future are stitched together, making us reconsider the apparent distinction between them, which harkens back to Einstein's theory of relativity and to the first three lines of T. S. Eliot's *Burnt Norton* (1943): "Time present and time past / Are both perhaps present in time future, / And time future contained in time past" (1971, p. 13).

All steampunk fiction is Science Fiction, but not all time travel fiction is Science Fiction.

There are two popular [fields] in which time travel has long played a significant role, Science Fiction and the romance novel³. In modern romances, the time travel plot is almost exclusively a transportation medium: the hero or heroine is carried to or from a particular future or historical past, or is visited by a counterpart from that other time; some (usually) heterosexual liaison ensues (WITTENBERG, 2013, p. 26).

Time travel fiction is also present in Fantasy. For example, in J. K. Rowling's *Harry Potter and the Prisoner of Azkaban* (1999), and in one of the earliest examples of time travel fiction: Charles Dickens' "A Christmas Carol" (1843), which presents time travel through the influence of ghosts. In fact,

Science Fiction authors are divided over the generic and/or aesthetic question of whether time travel counts as proper Science Fiction or as "mere" Fantasy, and critics have perhaps too quickly followed suit, continuing to debate whether time travel plots are legitimately "hard" or realistic (WITTENBERG, 2013, p.26, author's emphasis).

Some prefer to categorize time travel as being Science Fantasy, once there is no feasible way to realize it via contemporary scientific methods. Going back to Jeter's novel, Adam Roberts suggests

That Jeter, not wanting to limit himself to textual riffs upon one great nineteenth century author, played a sort of imaginative textual counterpoint upon another one — Mark Twain, whose *A Connecticut Yankee at King Arthur's Court* (1889) is the other great precursor novel in the traditions of

³ Wittenberg uses the term *romance novel* to refer to novels that explore the love relationships of its characters. Specifically, the *romantic* love between the characters. To put it simply, love stories like Audrey Niffenegger's *The Time Traveler's Wife* (2003), and Richard Matheson's *Somewhere in Time* (1975).

time travel fiction. Although Twain's book came out six years before Wells, its influence on Science Fiction has been much less. Some would not even call it Science Fiction, since it lacks the pseudo-technological for its temporal voyage: there is no machine in Twain's story, his protagonist simply and inexplicably drops back in time to the Arthurian era (2011, p. 329-330).

Throughout this thesis we will consider time travel as belonging to Science Fiction, because Science Fiction is not *only* hard Science Fiction, which means that Science Fiction's value is not necessarily bound to ideas of it being an entertaining and accessible way of scientific marketing. *What matters in Science Fiction is the fiction, not the science.*

The stuff isn't disguised engineering lectures, after all. It isn't that invention of a mathematical Satan, "story problems". It's stories. It's fiction that plays with certain subjects for their inherent interest, beauty, relevance to the human condition. Even in its ungainly and inaccurate name, the "Science" modifies, is in the service of, the "Fiction" (LE GUIN, 2017, p. 758, author's emphasis).

All of these, Gothic, Science Fiction and time travel, have ties to Fantasy. However, the focus of this thesis is the relationship between the Gothic and Science Fiction. More specifically, we are interested in analyzing what Wittenberg calls the *paradox story*⁴, a "formal turn that characterizes time travel fiction after Einstein, [which] coincides nicely with [John W.] Campbell's highly influential insistence on scientific plausibility and consistency" (WITTENBERG, 2013, 51-52). Our goal is to analyze many different texts that explore the two most common paradoxes in time travel fiction — the Bootstrap Paradox, and the Grandfather Paradox — in works that we have deemed belong to *Gothic Science Fiction*.

This means that these works are darker, and perhaps more fantastical than those that are more commonly associated with Science Fiction. And in that we are working under the assumption that paradox stories are tainted by the Gothic — full of negative, unwanted effects, like horror, tragedy, monstrosity, and the like. We accept the proposition that the Gothic creates Science Fiction, but we also believe that Science Fiction leads back to the Gothic, like the snake Ouroboros eating its own tail. In this way, Science Fiction and the Gothic have a paradoxical — and metatextual — relationship reminiscent of time loops, which leads us right into a discussion of the paradoxes of time travel fiction now.

⁴ Wittenberg specifies that the paradox story was an invention of the pulp magazine writers of the 1930s and 1940s. In our case, we are using the term more expansively, referring to time travel stories from any place in time.

“We are in the domain of logic, which is, let’s remember, a country distinct from the domain of reality” (GLEICK, 2016, p. 221). Here we are working with the standard, somewhat conservative model of David Lewis, whose “The Paradoxes of Time Travel” (1976) argues that

Time travel is possible. The paradoxes of time travel are oddities, not impossibilities. They prove only this much, which few would have doubted: that a possible world where time travel took place would be a most strange world, different in fundamental ways from the world we think is ours (p. 145).

In his text, Lewis attempts to solve the logical problems presented by the paradoxes of time travel. His solutions turn what is perceived as mere flights of fancy into existentially relatable possibilities, not only because we are all traveling through time one second at a time, and thus we are all, in this way, time travelers, but also because we “[our]selves are stories — time travel stories” (WITTENBERG, 2013, p. 78). And so the study of the paradox story is an endlessly exciting, if narcissistic, endeavor.

It is important to point out that traveling to a future time is not a problem in the context of Science Fiction. It is in traveling from the present to a past time that these paradoxes come into the front.

The looming paradoxes and loops are the same in both domains but, as the future has only virtual existence, the contradictions have no consequences. Travel to the past, on the other hand, threatens the present’s conditions of existence (CSICSERY-RONAY JR, 2008, p. 99).

A point that has been made time and time again is that reality does not have to be realistic to be real. No matter how ridiculous, melodramatic, and unbelievable reality is, it is still real. For instance, in *VALIS* (1981), Philip K. Dick writes that “reality is that which, when you stop believing in it, doesn’t go away” (2011, p. 80). And fiction, for its part, has to be realistic *only* to its specific, built-in fictional universes. As such, the ways that time travel works in different stories differ drastically. In some, everything is predetermined and the past can never change, only fulfill itself; in others, determinism holds no power, instead giving its characters free rein over changing the past to create alternate, sometimes better, futures.

Paradoxes are commonly defined by logical self-contradiction, which is to say that they are illogical and, therefore, irrational — by trying to make rational sense of them, one is confronted by their nonsense. “All the time travel paradoxes stem from retrocausality. Effects

undo their causes” (GLEICK, 2016, p. 235). Indeed, “all the paradoxes are time loops. They all force us to think about causality. Can an *effect* precede its *cause*?” (GLEICK, 2016, p. 232, author’s emphasis).

The *Predestination Paradox* is an interesting one because it predates time travel fiction itself, but we will not be dedicating an entire chapter of this thesis to it because it is closely related to the *Bootstrap Paradox*, which will be looked at in our second chapter. Often, to talk about the Bootstrap Paradox is to talk about the Predestination Paradox, and so it would be superfluous to have separate chapters for both of them. In fact, the Predestination Paradox is so closely related to the Bootstrap Paradox that some consider both as different names for the same thing. We will, however, attempt to differentiate them slightly in this first chapter. As for the *Grandfather Paradox*, the third chapter of this thesis will be dedicated to it.

The Predestination Paradox constitutes the dramatic axis of Sophocles’ *Oedipus Rex* (c. 429 BC). In summary, the character of Laius receives a prophecy: he is destined to be killed by his own son. Wanting to avoid such a fate, he leaves his son in the wilderness to die. But the baby, Oedipus, is saved. Oedipus, for his part, also receives a prophecy: he is destined to kill his own father and become the husband to his own mother. Horrified, Oedipus runs away from home, unwitting to the fact that by trying to escape fate he is stepping right into its hands. And so he kills his own biological father and marries his own biological mother. The question, then, is: were Oedipus not to have heard the prophecy, would he have fallen victim to the same fate?

The idea of the self-fulfilling prophecy is ancient, though the term is new, coined by the sociologist Robert Merton in 1948 to describe an all-too-real phenomenon: “a false definition of the situation evoking a new behavior which makes the originally false conception come true”. (For example, a warning of gasoline shortages causes panic buying that leads to gasoline shortages.) People have always wondered whether they can escape destiny. Only now, in the era of time travel, we ask whether we can change the past (GLEICK, 2016, p. 232).

The universe of Sophocles’ tragic play is one bound by determinism, which is to say that the characters are all slaves with no actual free will. They have no control or agency over their lives. Sickened by his sins, Oedipus blinds himself and decides to live a life of humility and atonement. It is safe to say that he is burdened by guilt. However, in a world like this, where people are just pawns with no free will, guilt is redundant, right? If Oedipus was just a toy for fate to play with, and committed crimes without knowing it, why should he, his

biological mother/wife, or his children/siblings, feel any sort of obligation to repent, or even be upset about it in the first place? Why not simply continue to live their lives in happiness and royal prosperity?

The answer, of course, is that they had become (even worse) monsters (than they already were) in the eyes of their society *and* in their own eyes, once the moral boundaries between familial and romantic relationships of their society were transgressed. “The monster is transgressive, too sexual, perversely erotic, a lawbreaker; and so the monster and all that it embodies must be exiled or destroyed” (COHEN, 1996, p. 16). Oedipus’ children/siblings, in fact, are innocents in all of this; then again so are their parents, Oedipus and Jocasta. “But it seems, in tragedy, that innocence is not enough” (WHITE, 1987, p. 312).

In the field of time travel fiction, the Predestination Paradox is explored, for example, in James Cameron’s *The Terminator* (1984) movie, where a cyborg from the future has come to kill a woman before she can birth the child who is destined to lead a resistance movement in the future. By being unsuccessful in its mission, the cyborg leaves behind the robotic parts which make the invention of cyborgs possible in the first place; not only that, by having the cyborg come to the past, it also brings a man from the future to try and stop it, this man being the biological father of the child that will lead the resistance in the future.

In the field of prose time travel fiction, the Predestination Paradox is explored by one of Science Fiction’s greatest practitioners, Ray Bradbury. In his short story “A Touch of Petulance” (1980), a young man is confronted with a future version of himself, who is reading a newspaper from the future that reveals the knowledge that he is going to kill his wife. A series of quick confrontations follow until the younger man accepts that he is indeed talking to his older self. This old man has killed his wife and has come back in time to try and warn himself about it, so that he can stop that from happening. Here time travel is used to explore the topics of regret and the doppelgänger.

The older self, when he is about to leave his younger self, leaves with him a parcel, which contains a small revolver, which the old man used to shoot his wife. The story closes with the following lines:

“Shut the door”, said his wife.
 His face was cold. He closed his eyes.
 Her voice. Wasn’t there just the tiniest touch of petulance there?
 He turned slowly, off balance. His shoulder brushed the door. It drifted.
 Then:
 The wind, all by itself, slammed the door with a bang (2020, p. 40).

What is implied in this ending is the suggestion of the self-fulfilling prophecy, where the older man has guaranteed his wife's being murdered by himself again — motivated by guilt and regret, an actual harbinger of death, though not the physical death of its double. Virtually speaking, this version of the main character has never been in the shoes of his younger self and has never been warned of what was going to happen (or else he would surely remember it). That means that the laws of this fictional universe are not entirely dictated by determinism. However, the story also implies that even though disparities are possible, and the future can influence the past, this influence is not drastic enough to stop happening what has been destined to happen. So, the creation of distinctly different alternate timelines and alternate universes might be impossible here. When the character wonders about the touch of petulance in his wife's voice, the story is toying with the idea that people are slaves to their own desires; that we cannot choose what we want, that we can only repress it for a while until we fall, inevitably, victim to it.

The Predestination Paradox, as we have seen, seems to be more occupied with the idea of information than with the figure of the time traveler. The stories that work with it do not have to have its action following characters going backwards and forwards through time. Therefore, it is closely bound to the ideas of prophecy, forethought and foresight impacting the present — which is always the present of the story. And it implies the sense that the past can never be significantly changed, only realized, much like the next paradox we are going to talk about.

The Bootstrap Paradox (also known as the Ontological Paradox, or simply as a Causal Loop), in our view, is tied to the idea of characters traversing time, therefore making its protagonist the actual time traveler, so the present of the story can also be the protagonist's past and/or future. The Doctor, from BBC's *Doctor Who* (1963-1989; 2005-), explains the Bootstrap Paradox this way:

There's this man. He has a time machine. Up and down History he goes, zip zip zip, getting into scrapes. Another thing he has is a passion for the works of Ludwig van Beethoven. And one day he thinks, what's the point of having a time machine if you don't get to meet your heroes? So off he goes to eighteenth century Germany. But he can't find Beethoven anywhere. No one's heard of him, even his family don't know who the time traveler's talking about. Beethoven literally doesn't exist. This is called the Bootstrap Paradox. [...] The time traveler panics, he can't bear the thought of a world without the music of Beethoven! Luckily he'd brought all his Beethoven sheet music for Ludwig to sign. So *he* copies out all the symphonies and concertos and gets them all published. He *becomes* Beethoven. And History continues with barely a feather ruffled. But my question is this: who put

those notes and phrases together? Who *really* composed Beethoven's Fifth? (O'HARA, 2015, our emphasis).

Perhaps the benchmark story that plays with the Bootstrap Paradox is Robert A. Heinlein's "All You Zombies—" (1959), which "remained unrivaled of its type until 1973, when David Gerrold's *The Man Who Folded Himself* appeared — but Gerrold needed an entire novel to outdo the Heinlein story" (D'AMMASSA, 2005, p. 5-6). Either way, once the setting is established, the story unfolds cleverly to the realization that the protagonist is both his own mother *and* father. In essence, the protagonist is a self-sufficient character who can be seen as the personification of time itself and, therefore, of the same nature as God. This is most evident in the climax of the story, where the protagonist exclaims "I *know* where I came from — *but where did all you zombies come from?*" (2013, p. 16, author's emphasis).

The narrative, then, explores the hermaphroditic face of God, which is to say that it illuminates the Gothic facet of divinity — what is female cannot also be male. In this way, "All You Zombies—" is a nihilistic examination of the dark and monstrous side of a clueless deity, who is judged by the cynical eyes of a race whose ideal of beauty lies in purity, and ugliness in the hybrid child of Hermes and Aphrodite. In the Spierig brothers' 2015 film adaptation, *Predestination*, this theme of bad faith judgment and prejudice is given more of a spotlight — the script making sure to show us how alienated the protagonist is from other people, and how despicable *they* are.

Moving on to Chris Marker's *La Jetée* (1962), which served as the basis for Terry Gilliam's 1995 film *Twelve Monkeys* [which led to an American television series (2015-2018) of the same name], the protagonist is a nameless man haunted by the memory of a woman he saw as a child. She was standing at the end of a pier, watching, horror-stricken, the falling shape of a man, who ends up dead. Shortly after, World War III starts, and a nuclear holocaust destroys the world. Obsessed with the image of this woman, the protagonist becomes the perfect candidate for time travel.

The message here is that time travel is for the imaginative: an idea that recurs in literature, for example in Jack Finney's *Time and Again* (1970). Time travel begins in the mind's eye. Here, in *La Jetée*, it's a matter not just of transportation but of survival. *The human mind balked. To wake up in another time meant to be born a second time, as an adult. The shock would be too much* (GLEICK, 2016, p. 242, author's emphasis).

The protagonist is revealed to be the man whose death he witnessed as a child in the beginning of the story through the woman's eyes. And from the perspective of the woman on

the pier, he is a man of mystery, who vanishes periodically. “*She calls him her ghost*. It occurs to him that in his world, his time, she is already dead” (GLEICK, 2016, p. 243, author’s emphasis). In this way, she is his ghost just as much as he is hers.

As we have seen in “A Touch of Petulance”, the Predestination Paradox can tackle the thematic of the double, but the Bootstrap Paradox is more commonly identified with these Narcissus-type meetings, where characters meet themselves. In the case of Audrey Niffenegger’s 2003 novel *The Time Traveler’s Wife*, this type of meeting is especially related to the myth of Narcissus, once it depicts the account as masturbatory.

I’m in my bedroom with my self. He’s here from next March. We are doing what we often do when we have a little privacy, when it’s cold out, when both of us are past puberty and haven’t quite gotten around to actual girls yet. I think most people would do this, if they had the sort of opportunities I have. I mean, I’m not gay or anything (NIFFENEGGER, 2013, p. 55).

The Bootstrap Paradox explores fractured identities, meaning that it roots selfhood in the disparate, hybrid quicksand of postmodernity — the self made up of other selves stitched together, like the pastiche of corpses that composes Frankenstein’s monster. In Netflix’s *DARK* (2017-2020), the antagonistic character, Adam, explains to a younger version of himself, Jonas Kahnwald, his motivations for acting, in the eyes of the disbelieving youth, in such nefarious and evil fashion:

We’ve declared war on time. God is our antagonist. We are creating a new world: without time, without God. How is that? In short, the God mankind has prayed to for thousands of years, the God that everything is bound with, this God exists as nothing other than time itself. Not a thinking, acting entity; a physical principle with which you can no more negotiate than you could with your own fate. God is time. And time is not compassionate. The instant we’re born our lives start to trickle away, like the sand in this hourglass. Death is always inevitable. Our destiny is nothing but the connection of cause and effect. In light, in shadow (ODAR, 2019).

Such an epic undertaking, of course, disfigures his morality, so Adam is willing to sacrifice everything, even things dearest to him, to reach the respite of timelessness. What he wants is to cease *being*. He has chosen *not to be*, because he sees himself as a monster — to use his actual terminology, he sees himself as “a glitch in the matrix”. His existence causes pain and destruction, for his birth is founded upon a Bootstrap Paradox, where the youngest son (Mikkel Nielsen) of his grandfather (Ulrich Nielsen) goes back in time to eventually become Jonas’s father (Michael Kahnwald). Adam, therefore, is a deformed monstrosity

whose character development is a dramatized exploration of Schopenhauer's famous idea that humankind can want what it wants, but it cannot choose what it wants; or, as Philip James Bailey once put it, that the heart is its own fate. Here, too, humankind has no control over its desires, no matter how frowned upon by society they might be — i.e. Humber Humbert's obsession with his *nymphets* in Nabokov's *Lolita* (1955).

As a matter of fact, in his 1959 essay "On a Book Entitled *Lolita*", Nabokov writes about what first inspired him to write the novel, revealing that it was a newspaper story about "an ape in the *Jardin des Plantes*, who, after months of coaxing by a scientist, produced the first drawing ever charcoaled by an animal: the sketch showed the bars of the poor creature's cage" (1997, p. 311, our emphasis). Such is Adam, but, as a character from *Doctor Who* would put it, "time travel has always been possible in dreams" (METZSTEIN, 2013), and so we dream of time traveling, and of being free from fate and destiny.

These dreams have already served fiction greatly, once its universes are not limited to the three dimensions of space and the one temporal one to which, apparently, ours is. By the fact that each author makes their own rules as to how time travel works, we can see how writers have used the concept of String Theory to their advantage. Given the six other possible dimensions that String Theory ponders, scientists have concluded that this theory does not apply to describe exactly how our universe functions, but artists and philosophers need not bind themselves to such empiricisms. Therefore, fiction can often explore these other dimensions.

In Poppy Z. Brite's second novel, *Drawing Blood* (1993), the two main characters experience a kind of hallucinogenic time travel dream to a fictional world — a fictional world inside the novel's fictional world. There, our two protagonists meet people from their own past and interact with them. Metaphorically speaking, the use of time travel here is to showcase Zach's trauma from his abusive relationship with his father. As for Trevor, the exploration, specifically, of the Bootstrap Paradox is used to show his struggles with survivor's guilt.

Drawing Blood is a novel about hauntings. Trevor, a twenty-five-year-old comic book artist, is haunted by the actions of his father, Bobby, who murdered Trevor's mother, younger brother and then committed suicide. Trevor, now, goes back to the house where the murders took place in to find out why his father did what he did and why he did not take Trevor with him too. It is not accurate to say that Trevor ever finds answers, but he finds Zach, a broken man like himself, and together they are able to move on from their ghosts, but not without struggling first.

“I mean, where were you on the space-time continuum? *When* were you?”
 “This house. That night. I saw my mother dead. I saw my brother dead. Then I came in here and Bobby was alive, was sitting on the bed deciding whether to kill me. He saw me, *spoke* to me, and decided he couldn’t do it. It was my own fault” (BRITE, 1994, p. 345, author’s emphasis).

The interesting thing here is Zach’s perception of Trevor’s feelings. Wanted by the FBI, Zach is a highly effective computer hacker, and so his thoughts on Trevor’s situation are colored by cyberpunk-like metaphors and analogies:

Zach’s head was beginning to clear a little; it almost made sense. He thought of loops, which were computer programs designed to repeat a set of instructions until a certain condition was satisfied. Zach had previously suspected that hauntings, if they existed, might operate on much the same principle. This was borne out by most of New Orleans famous ghost stories, in which the ghost usually appeared in the same place and repeated the same actions again and again, such as pointing at the spot where its bones were buried or rolling its decapitated head down the stairs.
 The idea still seemed to make sense somehow. This was one hell of a complicated program, but maybe Trevor had managed to break into the loop (BRITE, 1994, p. 345-346).

Indeed, Trevor had broken *into* the loop, making him want to kill his lover in his own right, just like his father had done. What follows is Zach’s attempt at trying to help Trevor break free from that loop.

“Then I’ll be dead and you won’t have me anymore”.
 “Yes I will. You’ll be right here. This place preserves its dead”. *Like hitting a SAVE key*, Zach thought, and that reminded him of loops again. Had some kind of homicidal loop been set in motion in Trevor’s head?
 And if it had, how could he interrupt it?
 [...]
He’s taking me to his hell, Zach thought, and he’s going to eat me there, he’s going to rip me apart looking for magic inside me, and he won’t find it. Then he’ll fulfill the condition of the loop, he’ll kill himself. What a stupid program (BRITE, 1994, p. 348-349, author’s emphasis).

Zach succeeds in helping Trevor to break free from his loop. Subverting expectations, Zach saves Trevor in the cheesiest of ways:

He thought he knew what was on that loop in Trevor’s brain. “Is it about love?” he asked. “Trev, do you think you have to make all this keep happening to prove you love me?”

At first he thought Trevor wasn't going to answer. But then, ever so slowly, Trevor nodded.

We're so fucked up, Zach thought. [...]

"But I *know* you love me, Trevor. I believe you. I want to stay alive and show you. I don't need you to take care of me; I can take care of myself. And if you come away with me I won't leave you ever".

"How..." Trevor's voice sounded husked out, used up. "How can I know that?"

"You have to trust me", said Zach. "All I can tell you is the truth. You have to decide the rest for yourself" (BRITE, 1994, p. 353, author's emphasis).

Determinism, in this novel, holds only psychological power over the characters. It is difficult to break from its mold, but it is not impossible. Analogous to living with mental illness or addiction, Brite gives his characters a positive ending. The fact that a gay couple got a happy ending is subversive in its own right — perhaps even more so once the novel is deeply entrenched in the Gothic; therefore the expectations of a positive ending are not expected. But then again, some might not think this a happy ending at all; instead deeming the happiness of gay people horrific, disturbing, and immoral in its own right.

In E. M. Forster's "Terminal Note" (1960) to his novel *Maurice* (1971), he writes:

[The novel] was finished in 1914. The friends, men and women, to whom I showed it, liked it. But they were carefully picked. It has not so far had to face the critics or the public, and I have myself been too much involved in it, and for too long, to judge.

A happy ending was imperative. I shouldn't have bothered to write otherwise. I was determined that in fiction anyway two men should fall in love and remain in it for the ever and ever that fiction allows, and in this sense Maurice and Alec still roam the greenwood. I dedicated it "To a Happier Year" and not altogether vainly. Happiness is its keynote — which by the way has had an unexpected result: it has made the book more difficult to publish. Unless the Wolfenden Report becomes law, it will probably have to remain in manuscript. If it ended unhappily, with a lad dangling from a noose or with a suicide pact, all would be well, for there is no pornography or seduction of minors. But the lovers get away unpunished and consequently recommend crime. Mr. Borenus is too incompetent to catch them, and the only penalty society exacts is an exile they gladly embrace (2006, p. 250, author's emphasis).

Wholesome, old-fashioned, twentieth century sensibilities seem to be resurfacing. So, happy endings for "criminals", toxic, and problematic people are being shunned and reprimanded again. Very much like the early Gothic novels that did not uphold societal morals and were changed in further editions [Matthew Lewis was almost incarcerated for *The Monk's* first edition (1796)]. However, such is life and such are people — toxic and problematic. And to judge the quality of aesthetics via morality is nothing short of censorship

— either right or left, extremism is still extremism, and what we are seeing now are attempts from extremists at controlling people’s imaginations.

Regardless, the Bootstrap Paradox is still being used in Gothic fiction. In Netflix’s *The Haunting of Hill House* (2018), the character of Nellie proclaims that “our moments fall around us like rain, or snow, or confetti” (FLANAGAN, 2018). Combining this Einsteinian perspective of time with the Gothic elements of Shirley Jackson’s influential novel, in episode five it is revealed that Nellie is stuck in an afterlife where she haunts her own past life. Therefore, she is always leading, and has always led herself to her present post-mortem torture. A similar device is used in Netflix’s *The Haunting of Bly Manor* (2020) as well.

Time, in fiction, then, functions as the Doctor (from *Doctor Who*) describes it:

People assume that time is a strict progression of cause to effect, but actually from a non-linear, non-subjective viewpoint, it's more like a big ball of wibbly-wobbly, timey-wimey stuff (MACDONALD, 2007).

In *DARK*, when Adam and Jonas are talking to each other, the latter expresses an inability to believe that he will ever want what his older self wants, whereas the former exclaims that he remembers feeling and saying the exact same thing. Their exchange is similar to a psychoanalytic session, where the same character, in different points of his life, has to come to terms with both his past and his future at the same time in the present. Such a resemblance is natural of this mode, because

Time travel is [also] a mode of psychological implication, a scenography in which selves meet themselves, kill their progenitors, and plumb the significance of their own histories for their present instantiations or avatars. Time travel, in essence, becomes what Lacan thought the psychoanalytic session was, a “realization of the [subject’s] History” in a present discourse, or even “the restitution of the subject’s wholeness on the guise of a restoration of the past” (WITTENBERG, 2013, p. 64).

Thus, everything that Jonas feels, Adam has already felt; and everything that Adam is saying, he has already heard himself saying before, and he is saying it only because he heard a previous Adam say it when he himself was in Jonas’ shoes. There is no origin to the endless cycle of Jonas’ self-realization and Adam’s self-actualization. This is the Bootstrap Paradox, named so after Robert A. Heinlein’s 1941 short story “By His Bootstraps”.

Jonas’ negative feelings toward Adam are still alive by the end of their session — and are further deepened as the narrative moves to its climax —, and so he tries to avoid, at all

costs, becoming Adam. His future self functions similarly to the monstrous painting of Dorian Gray in Oscar Wilde's 1890 novel. Jonas wants to change the past to avoid the future. He wants to kill the future where he becomes Adam, but he just might end up killing himself instead and becoming the monster he does not want to be. Similarly to Dorian Gray, who ends up killing himself at the same time he destroys his horrid picture — with the result that the picture's deformities come into being in Dorian's own beautiful countenance, turning him into the ugly monster he actually was.

However, the idea of parallel worlds is also explored in *DARK*, and so is the Grandfather Paradox. Simply speaking, there are two main worlds in the universe of the story. Both having originated from a third one — referred to as the origin world. In this world an accident happens and a scientist loses his family after having a huge argument with his son. Unable to accept his family's death, the scientist builds a time machine that originates the other two worlds of this fictional universe. In both these created worlds determinism rules, but there are glitches in their matrixes — Jonas and Martha, and together they are able to go to the origin world, and to save the lives that the scientist wanted to save. After this happens, both the created worlds and their tenants disappear, once the time machine was never created in the first place because the scientist's family did not die.

This is a melancholic but hopeful ending to the story. If determinism rules only in these simulated worlds, the fabric of the origin world is different, once determinism does not rule there. This means that we can change History and it implies that horrible tragedies were never destined to happen. Therefore such negative pop icons like Adolf Hitler are not absolved of moral responsibility. But more importantly, it means that the people lost in the holocaust were never born to die. Being a German show made by German people, one can assume why they opted for an ending that makes use of the next time travel paradox we are going to talk about.

The Grandfather Paradox is where a time traveler goes back to the past and kills his grandfather before the latter has the chance to become a father in the first place. The question, then, is that if the time traveler's father never existed, how can the son of this man come to exist at all, and how can someone who never existed kill anyone? The most interesting topics to explore in conjunction with this specific paradox are those related to branching timelines — multiple universes, parallel worlds, alternate histories; all of which have one thing in common: the exploration of the question *what if?*

Tim travels not only in time but also from one branch [of time] to another. In one branch Tim is absent from the events of 1921; Grandfather lives; Tim is born, grows up, and vanishes in his time machine. The other branch diverges from the first when Tim turns up in 1920; there Tim kills Grandfather and Grandfather leaves no descendants and no fortune; the events of the two branches differ more and more from that time on. It is a story in which Grandfather both is and isn't killed in 1921 (in the different branches); and it is a story in which Tim, by killing Grandfather, succeeds in preventing his own birth (in one of the branches). But it is not a story in which Tim's killing of Grandfather both does occur and doesn't: it simply does, though it is located in one branch and not the other. And it is not a story in which Tim changes the past. 1921 and later years contain the events of both branches, coexisting somehow without interaction. It remains true at all the personal times of Tim's life, even after the killing, that Grandfather lives in one branch and dies in the other (LEWIS, 1976, p. 151-152).

This type of paradox is, explicitly, perhaps the oddest of them all, for it can *offer* us the slightest of opportunities to free ourselves from the responsibility of having to make choices and risk making the wrong ones, but it also threatens us with the possibility of making bad situations even worse in our attempts at fixing past mistakes. For example, what if in the time traveler's mission to kill baby Hitler, he instead makes sure that Hitler grows up to be the tyrant we know him to have been; or what if toying with time leads to Hitler winning World War II? The Grandfather Paradox does not free us from responsibility or guilt. In fact, it enhances them.

The most common approach to this type of paradox story is one where characters want to fix a past tragedy from happening. But however many times they try, they only seem to make it come true, over and over and over again. This is how the Grandfather Paradox is approached in Stephen King's *11/22/63* (2011). In the novel, the protagonist tries to stop JFK's assassination. The standard narrative follows. The main character falls in love with a woman in the past, who of course dies, bringing him to try and save her no matter what. However, when he goes back to his present time, he sees that the world has come undone and is a lot worse than it was before he meddled with the past. And so the dramatic pathos of the ending lies in the hero sacrificing his relationship with the woman that he loves for the sake of humanity at large. This is a classic altruistic approach that, at this point, borderlines on a lack of imagination and creative bankruptcy. This is no fault of the concept itself. The Grandfather Paradox has been approached in variously creative fashions (i.e. in Tatsuya Matsubara's video game *Steins; Gate* (2009) — which will be discussed in our third chapter —, and in the previously mentioned *DARK*). In the case of King's novel, all the responsibility falls on the author's execution, not on the concept he is working with.

What we have deemed the paradoxes of time travel and defined, ala (and via) David Lewis, as time oddities instead of impossibilities, are the result of the influence of post-Einsteinian Physics on literature, especially in Science Fiction. This enables, in fiction, a “metaliterature of Oedipus and Narcissus, a literature about encountering (or reencountering) oneself, about meeting (or remeeting) one’s progenitors, about negotiating (or renegotiating) one’s personal and historical origins” (WITTENBERG, 2013, p. 64). And what it implies about identity is that

The self is the narrative of its own time travel, a fantasmatic invention of a mechanism by which it completes an excursion into its own past, and therefore the possibility — literal in a time travel story, presumably fantasmatic in real life — of a consummate viewpoint upon its full series of cross-sections (WITTENBERG, 2013, p. 76-77).

The writing of far-future utopian fiction was in vogue when H. G. Wells decided to explain how a contemporary person could bridge the gap of time and get to Utopia. Such a choice helped his 1895 novella *The Time Machine* to succeed, for the narrative voice and exploration of the scientific method were utterly contemporary and accessible to readers. *The Time Machine*, undeniably Science Fiction, however, does not present the reader with a utopian future, but with a highly sinister, cannibalistic version of things to come, ending with an apocalyptic image of a dying Earth. Max Nordau’s *Degeneration* (1892-1893), a forefather to fascist thought, had an influence over Wells’ text, once the novella presents humanity as having gone through a process of degeneration — going backwards in the evolutionary scale. Here, too, the mode of time travel and the genre-mode of Science Fiction are connected to the Gothic genre-mode via Wells’ imagining of a hopeless future.

Gothic Science Fiction is in one sense about the way the dereliction of the past always inflects the shiny new spaces of the present and the future. In Aeschylus’s *Agamemnon*, Cassandra was gifted with prophecy by her rapist, Apollo; and at the same time cursed with the fact that nobody would believe her prophecies. The implication in the play is that people don’t believe her prophecies because they don’t *understand* them: at the level, that is to say, of simple semantics. I wonder about an alternate spin on this famous myth — that everyone knows Cassandra has been gifted by a God with the power to predict the future; that everybody comprehends her prophecies perfectly well, but that *nevertheless* they do not believe her. They do so not out of any kind of stubbornness of the human spirit, so much as the radical impossibility of the future manifesting itself in the present. Or to put it a little more precisely — what Cassandra prophesies — is, in a word, death; and death is something that haunts us from the past [ghosts] rather than the future. The eerie spaces of [Horace] Walpole’s *Castle of Otranto* (1765)

[*sic*], Gothic's ur-text, are the repressed memories of past familial trauma and murder. What gives Gothic Science Fiction its peculiar, counter-intuitive potency is precisely the way it parses this eerie, spectral pastness as the future (ROBERTS, 2014, p. xii, our emphasis).

3. HEROIC CONSERVATION: THE BOOTSTRAP PARADOX

In Michael Moorcock's Science Fiction novel *Behold the Man* (1969), the protagonist Karl is a troubled man whose main character traits are that he is interested in the ideas of psychiatrist Carl Jung, and that he is a fan of Jesus Christ. This man time travels back to AD 28, where he searches for Jesus Christ. Thought to be a holy man, once people saw him arrive in the time machine, John the Baptist deems Karl a magus, and pleads for him to help them revolt against the Romans that are occupying their territory. When John asks Karl to baptize him, Karl panics and runs away to the desert, eventually arriving at Nazareth.

There he finds Mary and Joseph, who disappoint him, because Mary is a prostitute, and Joseph is a bitter man that sneers at Mary's claims of having been impregnated by the angel Gabriel. Their son, Jesus, turns out to be mentally handicapped. Disillusioned, but still committed to the historical image that he loved of Jesus, Karl steps into that role himself. Gradually, then, he becomes Jesus Christ — his hero/savior complex becoming more and more literal throughout the novel. Eventually, Karl asks Judas to betray him, and then he is crucified. After Jesus/Karl's death, his body is found missing, therefore originating the tale of Jesus's resurrection. In actuality, the body was stolen by a random doctor, who hoped to see something miraculous, magical and special about it. But all he finds is a pathetically normal human body that rots like any other.

The figure of Jesus Christ represents what we have come to know in fiction as the archetype of the hero. There is a myriad of archetypes, but the most common ones are: hero, mentor, threshold guardian, herald, shapeshifter, shadow, ally, and trickster. These, however, are not always related to specific physical characters in the stories. Many characters can have transient roles where they wear the mask of a specific archetype for a while and then cease to play that role. Rather than rigid character types, archetypes are better defined as flexible character functions that aim for certain effects in the story.

Archetypes can also be seen as emanations of the hero. "The other characters represent possibilities for the hero, for good or ill. A hero sometimes proceeds through the story gathering and incorporating the energy and traits of the other characters" (VOGLER, 2007, p. 24-25). Vogler mentions Carol Pearson's *Awakening the Heroes* (1991), which works with the idea that the hero archetype can be broken down into further sub-archetypes: innocent, orphan, martyr, wanderer, warrior, caregiver, seeker, lover, destroyer, creator, ruler, magician, sage, and fool. But at its core the hero is tied to self-sacrifice. "The word *hero* is Greek, from a root that means *to protect and to serve* (incidentally the motto of the Los Angeles Police

Department). A hero is someone who is willing to sacrifice his own needs on behalf of others” (VOGLER, 2007, p. 29, author’s emphasis). As described in Poppy Z. Brite and Christa Faust’s short story “Saved” (1998): “That figure on the cross, pale and thin and pierced: a true submissive, a submissive for all humanity” (2000, p. 45).

The hero is a flexible concept, but at its most common assumption, it is like a security system that gets triggered every time the established world order is threatened, and then they die off after having gotten rid of the problem. This can be seen in the closing scene of K. W. Jeter’s *Morlock Night* (1979), where King Arthur is talking to his mentor, Merlyn, in his deathbed after completing his mission:

Something moved inside me that made me gasp, but the pain soon passed away. “I’m very tired now. Perhaps you’d better go”.

“Yes. And I’ll take the sword with me”.

I could hardly hear him, or myself. “What will you do with it [Excalibur]?”

“I will cast it into the underground sea here, so that it might return to you when you have need of it again. Farewell”. Then he was gone away from me.

Only a little time had passed when the darkness folded about me like the softest and warmest of shrouds. And then, in that time and place — our Lord’s year 1892 in Victoria’s England — I saw no more (2011, p. 321-322).

In Hajime Isayama’s manga series *Attack on Titan* (2009-2021)⁵, the archetype of the hero differs a lot from Jeter’s depiction of Arthur. In fact, the term anti-hero seems more appropriate to describe Eren Jeager, a more specialized type of hero. This hero can be of a wounded, more cynical kind, or a tragic one, “who may not be likeable or admirable, whose actions we may even deplore. [...] These are flawed heroes who never overcome their inner demons and are brought down and destroyed by them” (VOGLER, 2007, p. 35). Isayama’s hero is a tragic one.

Eren’s actions are mostly selfless and for the good of his people, but this is where the problem lies. His people are the vast minority in a world that ostracizes and demonizes them. This puts him right up against the established order of things, and to go against the establishment is to become a devil. To the world outside of Paradis Island, Eren Jeager is a monster, a blood-thirsty, genocidal maniac. To a lot of his people, Eren is the hero that will set them free by exterminating everyone else that is not on their island. Some of his comrades,

⁵ We consider this a work of Gothic Science Fiction due to its focus on warfare, and because all of the fantastical elements are explained to be tied to the science of the fictional world. All except for the being that originates these elements. But seeing that actual science is unable to explain the origin of things, we do not see this as an issue to our classification.

however, feel guilty about the prospect of benefitting from Eren's genocide, and so they try to stop him.

It is of note that all of the people who try and stop Eren are in the military. In other words, people who were trained to be selfless and self-sacrificial. As is said in episode⁶ 15: "You've got to throw out everything that person was and start over with a clean slate if you're going to make a good soldier" (ISAYAMA, 2014, p. 635). It seems, then, that what makes a good soldier is the same quality that makes one a hero: selflessness. In this way, every major character in *Attack on Titan* can be said to be a hero. What makes a bad soldier is an inability to follow the military's orders. And once Eren decides to go against his superiors' orders, he is deemed a traitor, even though his actions actively benefit their people, where his superiors' orders serve only to keep their kind at the borders of extinction.

What drives Eren over the edge is the ability to access the memories of the people who bore his titan powers before him. So he has seen an insurmountable amount of pain that his kind has suffered throughout History. Imagination, which is to say empathy, can only go so far, and so it is impossible for any other character to understand how shattered Eren is. All they can see is how joyless, cold and furious he is, as though he is a horse with blinders on, unable to see anything but the goal of achieving freedom at any cost.

Attack on Titan works with narrative echoes and compositional symmetry to enhance its main theme: the endless cycle of hatred and how History repeats. One way that it does this is by using time travel, specifically the Bootstrap Paradox, most apparent in episode 121: "Memories of the Future", where Eren and his older half-brother, Zeke, roam around the memories of their father, Grisha. For context, the brothers were supposedly working for a common goal: that of making their kind sterile, so they can die off without birthing other devils like them. This is referred to as Zeke's euthanasia plan. However, Eren betrays his brother, deeming Zeke's plan too messed up for him to go along with. And so, in an attempt to save his brother from their father's supposed brainwashing, Zeke takes Eren into Grisha's memories, so he can show Eren just how horrible their father was as a person.

What happens, however, is a shock to Zeke's view of Grisha. He sees how much better of a father Grisha was to Eren than to him. For his part, Eren tells his brother that he is acting out of his own accord, and that he has always been the type of person to fight until the bitter end. Moreover, their presence in Grisha's memories actually affects the events of the story. And so the reader sees how actions at the very start of the story were influenced by Eren and

⁶ Chapters are referred to as episodes in the manga.

Zeke now. This has the effect of darkening the tone of the story, and it also has the role of stealing the blissful innocence from the beginning of the story. The way we view the characters, especially Eren, is also affected.

In episode 62: “Sin”, Eren finds himself trapped in a strange place that seems, somehow, familiar to him. At the end of this episode, he is privy to some of his father’s memories, which reveal that Grisha had been in that strange place and that he had killed many people to acquire the power of the Founding titan. This is also where Eren remembers that he got his titan powers by eating his own father. Episode 121 gives the reader the full context of the situation, revealing that Grisha was, on his own, incapable of killing those people, those children. But Eren speaks to him, convincing him to kill them all:

“What are you doing? Stand, father. Did you forget why you came here? Isn’t it to get revenge for your little sister, who was eaten by dogs? For your fellow restorationists. For Dina. For Kruger. You advance on to avenge them. Even if you die. Even after you die. Dad, *you* started this story. Didn’t you?” (ISAYAMA, 2018, p.885-887, author’s emphasis).

Later in the episode, Grisha and Zeke have a heartfelt moment, which is quickly followed by Grisha begging his firstborn to stop Eren from destroying the world in order to save Paradis Island. Grisha presents an interesting juxtaposition here. He wanted Zeke to be the savior of their people; he pressured his firstborn and was generally a poor excuse for a father to Zeke. He was so bad that he drove his own son against him. Zeke snitched on his parents, dooming them to be sent to Paradis, and to be unwillingly turned into mindless titans that prey on their own kind. From that, he became a much more loving father to his second son, who he only wanted to be a normal boy. But Eren turned out to be just like what Grisha had wanted Zeke to be. And confronted with this, he sees just what horrors his former wish entails.

The archetype of the mentor, which is to say “all those characters who teach and protect heroes and give them gifts” (VOGLER, 2007, p. 39), in *Attack on Titan*, is dealt with not in the characterization of a wise old person to aid and advise Eren. Rather, the story plays with the idea that it is his experiences, and his environment that mold him into what he becomes. He learns from most of the major characters, which further troubles his friends’ morality, because they know that they are somewhat to blame for Eren’s actions. Therefore, the mentor is realized as a function, “a job which several different characters [...] perform in the course of the story” (VOGLER, 2007, p. 46). In episode 134: “In the Depths of Despair”, a character confronted with certain death intones the thematic truth of the piece:

“Know this — the responsibility does not lie with you alone. It is shared by every one of us adults. We exploited hatred. We kept feeding our resentment. We even thought our hate would save us. We dumped every problem caused by our shortcomings onto “an island of devils”. And the result was the birth of a monster which has now come to return our hatred upon our own heads” (ISAYAMA, 2021, p. 144-145, author’s emphasis).

There are no prophecies in *Attack on Titan*, but there is still predestination, which comes from Eren’s ability to look into the past *and* into the future. It is revealed, in episode 121, that it was back in episode 90: “The Other Side of the Wall”, that Eren gained cognizance of his future actions. Though the reason was kept from the readers, this is when his character had a sudden turn, where he muttered:

“On the other side of the walls is an ocean. And on the other side of the ocean is freedom. That’s what I always believed, but I was wrong. It’s enemies that are on the other side of the ocean. This is all exactly as I saw in my old man’s memories, right? Those enemies on the other side of here, if we kill them all does that mean we’ll be free?” (ISAYAMA, 2017, p. 377-379).

A great deal of pain and self-loathing accurses Eren after he sees himself committing atrocities; he tries to look for a way to avoid the future, but is unsuccessful. His love interest, Mikasa, wonders at the possibility of having avoided Eren’s actions, had she but confessed her romantic feelings toward him. It is a nice thought born out of desperation and regret. The reader is also made to consider this possibility. However, in episode 139: “Toward the Tree on that Hill”, the final piece of information, in the final episode, is revealed to the reader. This being that Eren was the one to cause his mother’s horrible death in the first episode. With that in mind now, it is clear that everything that he was going to do, he had already done before, and so he was but a slave to his own destiny and desires — again, it is the Bootstrap Paradox in action here. The dramatic charge of the story comes from the fact that the one who wanted freedom the most, who fought for it the hardest, who sacrificed everything for it, never got to have it in life. But maybe death is freedom, perhaps the only way to truly be free.

Eren can be said to play the roles of hero *and* mentor throughout the story. Hero, because we follow his growth, change, and learn of his power and importance to the fictional world he inhabits — as well as his archetypal characterization at first. Mentor, because he manipulates *all* the characters (including himself) into doing his bidding, which is for them to kill him in order to make themselves heroes in the face of a hostile world. “Mentors are often

former heroes who have survived life's early trials and are now passing on the gift of their knowledge and wisdom" (VOGLER, 2007, p. 40), and Eren's playing the villain comes from knowledge and experience — gained via his ability to look backwards and forwards in time.

Eren was able to *kind of* go against the altruistic ideals that were plowed into his brain during his formative years in the military, due to his visions of the past and the future. His friends, however, lacked this power and so were not privy to the myriad of experiences that Eren was. In this way, they were less successful at going against their military programming, and so ended up sacrificing Eren for the greater good of humanity, just like Eren "wanted" them to. The narrative builds up to Eren's death in the way that the monstrous giants are revealed to have all been fellow patriots of theirs, who had been injected with a serum that could turn their kin into titans. And so these characters are able to get to a place where they can kill Eren because they were already used to killing their own people. As for Eren, he is able to get to a place where he can put his loved ones' lives in danger to achieve his goal of saving their future lives only because he has already seen that most of them end up surviving.

Arthur's remark in *The Once and Future King* (1958), "far from being willing to execute his enemies, a real king must be willing to execute his friends" (WHITE, 1987, p. 550), illustrates the hero's altruistic trait. Eren's selfish unwillingness to sacrifice his friends ironically puts them in danger — granted, not because he actually wants to put them in danger, but as a byproduct of what he knows needs to be done in order to protect most of them in the long run. What distinguishes him from Arthur, for example, is his unwillingness to accept things as they are, and his inability to submit. When Arthur discovers that his wife and best friend are having an affair, he simply bows his head down and pretends not to see a thing. This submissiveness, as mentioned already, is an important trait — perhaps the *main* trait — of a "classic" hero.

The hero is [a person] of self-achieved submission. But submission to what? That precisely is the riddle that today we have to ask ourselves and that it is everywhere the primary virtue and historic deed of the hero to have solved. As Professor Arnold J. Toynbee indicates in his six-volume study of the laws of the rise and disintegration of civilizations, schism in the soul, schism in the body social, will not be resolved by any scheme of return to the good old days (archaism), or by programs guaranteed to render an ideal projected future (futurism), or even by the most realistic, hardheaded work to weld together again the deteriorating elements. Only birth can conquer death — the birth, not of the old thing again, but of something new. Within the soul, within the body social, there must be — if we are to experience long survival — a continuous "recurrence of birth" (*palingenesis*) to nullify the unremitting recurrences of death. For it is by means of our own victories, if we are not regenerated, that the work of Nemesis is wrought: doom breaks

from the shell of our very virtue. Peace then is a snare; war is a snare; change is a snare; permanence a snare. When our day is come for the victory of death, death closes in; there is nothing we can do, except be crucified — and resurrected; dismembered totally, and then reborn (CAMPBELL, 2008, p. 11-12, author's emphasis).

Eren's inherent monstrosity, therefore, comes from a lack of submissiveness. As one of the characters puts it, "He's a true monster. It's got nothing to do with his *titan power*. No matter how much he's held back, no matter what cage he's in, no one can force him to submit" (ISAYAMA, 2015, p. 125, author's emphasis). On the grand scheme of things, Eren maintains the status quo of the world. The story closes with Paradis Island being attacked by outside forces, years after the death of the entire main cast of characters. So Eren's actions only served to perpetuate the world's hatred of his people. However, his goal was simply to allow the people that he knew and loved to live long, happy lives, because *they* were his world. And it seems that the problems of future generations were none of his concern.

The hero is responsible for conservation, tying it directly to the approach that time travel fiction authors take when dealing with the Bootstrap Paradox. The hero, in this way, can be seen as yet another strategy of *narrative* conservation — the past never changing via influence from the future. "In short, if characters or events in a time travel story conspire to change the past, very often other characters or events will intercede to forestall such a change or to counteract its influence: paradox will be repaired" (WITTENBERG, 2013, p. 150). It is more common for this idea to be explained by pseudo-scientific mumbo jumbo, as in: it is a physical law of the fictional universe that it is impossible for time to be rewritten. Theoretically, it *can* be rewritten, but it never is. Such a trait is often the dramatic axis of the conflict in these stories — trying to stop History from changing.

A time-traveling protagonist in Poul Anderson's *There Will Be Time* [1972] declares, "I've tried altering the known past and something always happens to stop me"; elsewhere Anderson writes that "the course of the world has enormous inertia". A character in John Varley's "Air Raid" [1977] suggests that "we can do things in the past only at times and in places where it won't make any difference"; "events are conserved", declares a Damon Knight character in "Arachron" [1954]; and in Fritz Leiber's *The Big Time* [1958], History is subject to a "law of the Conservation of Reality". Nearly as often, authors provide macrological explanations or even quasi philosophies of such conservation: in "Vintage Season" [1946], C. L. Moore writes that "the physiotemporal course tends to slide back to its norm". Sometimes time or History themselves are the agents of self-healing: Bill Pronzini writes that time itself can "seal the apparent rent in its fabric" and even "unmurder" a paradoxically dead ancestor; Michael Moorcock suggests that "if one goes back to an age where one does not belong, then so many paradoxes are

created that the age merely spits out the intruder as a man might spit out a pomegranate pip which has lodged in his throat". F. M. Busby provides this colorful allegory: "The past — it's pretty damned solid... It's a little like a compost pile — fairly soft near the surface, but packed hard further down, with all that time piled on top of it". John Brunner speaks of alterations of the past as "sluggish events", L. Sprague de Camp of events "too well rooted to be destroyed by accident", and Connie Willis of a "tough, immutable past" (WITTENBERG, 2013, p. 150-151, author's emphasis).

In Willis' *To Say Nothing of the Dog* (1998), the heroes keep History from changing by being "packed off out of the way before the course of History could correct itself" (p. 431). It does not seem far-fetched, then, to view the hero as another one of these incongruous metaphors of narrative conservation — a figure to keep the chaos of shifting realities at bay. In the case of this novel, the heroes are sent by the time-traveling device to a secure, isolated place where they cannot interfere and mess with the system's plan to keep the sanctity of the past unsullied. It is very clear that all of the characters are pawns, supposed to play their roles in the program's action plan, and that is all. None are privy to the full picture of their system's masterplan. This approach is perfectly in tune with the comedic tone and parodic style of the novel.

Riffing on the tropes of romantic comedy and Golden Age detective fiction, Willis concocts a story where Verity Kindle, a historian (which is to say a time traveler), does something that is supposed to be impossible: she saves a cat from drowning in the past, and brings it to the present. As Mr. Chiswick explains,

"The space-time continuum is a chaotic system in which every event is connected to every other in elaborate, nonlinear ways that make prediction impossible. Bringing an object forward through time would create a parachronistic incongruity. At best, the incongruity might result in increased slippage. At worst, it might make time travel impossible. Or alter the course of History. Or destroy the universe" (WILLIS, 1998, p. 31).

This is the inciting incident that leads the narrator, Ned Henry, to go back to the Victorian era in order to help Verity put things right to prevent altering History. Structured in the style of a "whodunit", Willis draws inspiration from the tradition of detective novels written between the 1920s and the 1930s. More specifically, she parodies the works of Agatha Christie, Dorothy L. Sayers, Ngaio Marsh, and Margery Allingham.

The term "whodunit" — as in "Who done it?" "Who committed the murder?" — [...] refers to the form of writing invented by Edgar Allan Poe in "The Murders in the Rue Morgue" (1841), one governed by a set of

conventions requiring fair play in the telling of the murder and presentation of clues and withholding of the identity of the murderer until the end. [...] The emphasis in the whodunit is on identifying the murderer; this means an emphasis on observing behavior and events, an emphasis on the plot. [...] The art of the whodunit comes in the pursuit of the identity of the murderer through the skillful presentation of clues. The writer is expected to adhere to the standard of fair play; that is, the writer must present to the reader all clues essential to the solution of the crime. This does not mean, however, that the writer must reveal the significance of the clues. Indeed, the writer's task is to deceive the reader whenever possible (OLEKSIN, 1999, p. 495, author's emphasis).

These characteristics apply to Willis' novel, except for the murder. Instead, the identity of a murderer, or of how the body ended up dead, is substituted for the mystery of the theft of a piece of Victorian art called the bishop's bird stump, and for the mystery of the identity of Tocelyn Mering's husband. Who is this Mr. C she wrote fervently about in her diary? His identity is conveniently made unreadable to Ned and Verity, which makes their job of making sure she marries who she is supposed to marry all the more difficult.

In 1928, S. S. Van Dine published his article "Twenty Rules for Writing Detective Stories", in which he specifically states that there must not be a love interest in the story, once the writing of detective fiction is supposed to be a purely intellectual experience, devoid of the clutter of sentimentality. Willis also does away with this convention, just like Dorothy L. Sayers, who once sang the praises of this rule right before breaking it herself. Moreover, by introducing time travel into the conventions of a "whodunit", Willis' respect for Van Dine's rules is not exactly perfunctory, because she follows some of the conventions of the form, but it is definitely rebellious. In fact, she is extrapolating the rationality-driven style by stretching it with the imagined, virtually naturalistic technology of time travel. Therefore, Science Fiction is, in itself, a way to parody the form of the Golden Age detective novel — realistically executed, but conceptually fantastical.

Darby and Gentilla [...] built the net as a pirated ship for plundering the treasures of the past, and they'd tried it on everything from the *Mona Lisa* to King Tut's tomb and then, when that didn't work, on more mundane items, like money. But nothing except microscopic particles would come through. When they tried to take any object, even a halfpence or a fish fork, out of its own time, the net wouldn't open. It didn't let germs through either, or radiation, or stray bullets, which Darby and Gentilla and the rest of the world should have been grateful for, but weren't particularly.

The multinationals who'd been backing Darby and Gentilla lost interest, and time travel had been handed over to historians and scientists, who'd come up with the theories of slippage and the Law of Conservation of History to explain it, and it had been accepted as law that if one tried to bring

something forward through the net, it wouldn't open. Till now (WILLIS, 1998, p. 106, author's emphasis).

Ghost stories can be seen as an early version of time travel stories, once it is about the interaction of a person in the present with ghosts from the past. In the case of Willis' novel, Tocelyn claims that "They are here now, spirits from another time and place. I can feel their presence" (WILLIS, 1998, p. 113). But instead of interacting with ghosts from the past, she is interacting with ghosts from the future.

"Do you suppose it's haunted?" Verity said.

[...]

"Haunted?" Tossie said happily and gave a miniature version of a scream, a sort of screamlet. "Of course it is. Madame Iritosky says that there are certain places that act as portals between one world and the next", she said.

I glanced at Verity, but she looked serene, untroubled by Tossie's having just described the net (WILLIS, 1998, p. 108).

The time travelers are twenty-first century historians from Oxford University in 2057. They are working toward Lady Schrapnell's project of restoring Coventry Cathedral, which has been destroyed in a Nazi air raid. Ned's role is to look for a Victorian atrocity called the bishop's bird stump. But when Verity does the impossible and misplaces a cat through time, Ned is drawn into a desperate attempt at History conservation, eventually leading him to the mystery of Tossie's husband, and to the finding of the bishop's bird stump. The momentary time displacement of Princess Arjumand is solved in chapter twelve, but its resolution only makes it harder for the characters to avoid Historical changes — at least that is what they think.

"What? You don't think I should have brought her back?"

"I don't know".

"I thought I should get her back here before there were any other consequences".

"I know", she said, looking genuinely distressed. "The thing is you weren't supposed to have brought her through in the first place".

"What?" I said.

"When Mr. Dunworthy found out about the Coventry slippage, he called off the drop".

"But — " I said. "I wasn't supposed to bring Princess Arjumand through? But I thought you said the Coventry slippage was unrelated, that it was due to a crisis point".

"It was, but while they were checking it, T. J. compared the slippage patterns to Fujisaki's research, and they decided the lack of slippage surrounding the original drop meant it was a nonsignificant event".

"But that's impossible. Animate creatures can't be nonsignificant".

“Exactly”, she said grimly. “They think Princess Arjumand was nonanimate. They think she was intended to drown”.

This was making no sense. “But even if she drowned, her body would still interact with the continuum. It wouldn’t just disappear”.

“That’s what Fujisaki’s research was about. She’d be reduced to her component parts, and the complexity of their separate interactions would drop exponentially”.

Meaning her poor body would drift down the Thames, decomposing into carbon and calcium and interacting with nothing but the river water and hungry fishes. Ashes to ashes. Dust to nonsignificance.

“Which would make it possible”, Verity said, “for her to be removed from her space-time location without any historical effect. Which meant she shouldn’t be sent back from the future at all”.

“So you didn’t cause an incongruity by taking her through the net”, I said. “But I did, by bringing her back”.

She nodded. “When you didn’t come, I was afraid they might have sent Finch or someone after you to tell you to drown Princess Arjumand”.

“No!” I said. “No one’s drowning anymore”.

She rewarded me with one of her devastating smiles.

“If she’s a nonsignificant event, we’ll take her back to the future”, I said firmly. “We’re not going to drown her. But that doesn’t make any sense”, I said, thinking of something. “Her drowning, if that’s what would have happened, would have had consequences, the same consequences her disappearance had: everyone looking for her, your going to Oxford, Tossie’s meeting Terence”.

“That’s what I tried to tell Mr. Dunworthy”, she said. “But T. J. said Fujisaki said those would have been short-term consequences without historical repercussions”.

“In other words, they would have gotten over the cat”, I said, “if I hadn’t walked in with her”.

“And you wouldn’t have walked in with her, if I hadn’t interrupted in the first place”, she said ruefully.

“But you couldn’t let it drown”, I said.

“No”, she said, “I couldn’t. And what’s done is done, and I’ve got to tell Mr. Dunworthy and find out what we do next” (WILLIS, 1998, p. 193-194).

The mystery of the drowning of Princess Arjumand turns out to never have been a drowning in the first place. Baine, the butler, had not been trying to drown her, but to discipline her the only way he had found to have any effect on her, by throwing her in the river. This revelation sends Verity into another spiral of guilty self-pity. To simplify, there are two major plotlines in the novel: the search for the stolen bishop’s bird stump, and the curious case the time-traveling cat. However, the latter has consequences which lead Verity and Ned into having to convince Tossie to get over her infatuation with Terence, because she is supposed to marry a Mr. C. However, they do not know who this man is. These developments, and others, eventually lead to the finding of the bishop’s bird stump, albeit in a very tortuous, non-linear, unexpected way.

Two seemingly unrelated mysteries turning out to be tied together is one of Golden Age detective fiction's most popular tropes. In fact, a lot of the rules of mystery novels are discussed and deconstructed throughout *To Say Nothing of the Dog*, especially by the character of Verity Kindle, who is portrayed as an avid reader of mystery novels.

"But what's going to happen when she finds out I don't have the slightest idea where the bishop's bird stump is and never did? The consecration's in two weeks, and I'm not supposed to be doing any drops".

"I'll help you", she said, "and we won't need to go anywhere. Poirot says all you need to solve a mystery is *the little gray cells*".

"Poirot?" I said. "Who's Poirot? The curate?"

"No", she said. "*Hercule Poirot*. Agatha Christie. He says — "

"Agatha Christie?" I said, completely lost.

"The mystery writer. Twentieth century. My assignment, before Lady Schrapnell took over Oxford *and* my life, was the 1930s, and it's an absolutely grim time: the rise of Hitler, worldwide depression, no vids, no virtuals, no money to go to the cinema. Nothing at all to do except read mystery novels. Dorothy Sayers, E. C. Benson, Agatha Christie. And crossword puzzles", she said, as if that explained everything.

"Crossword puzzles?" I said.

"Are not particularly useful in our present situation. But mystery novels are. Of course they're usually about murder, not robbery, but they always take place in a country house like this, and the butler did it, at least for the first hundred mystery novels or so. Everyone's a suspect, and it's always the least likely person, and after the first hundred or so, the butler wasn't anymore — the least likely person, I mean — so they had to switch to unlikely criminals. You know, the harmless old lady or the vicar's devoted wife, that sort of thing, but it didn't take the reader long to catch on to that, and they had to resort to having the detective be the murderer, and the narrator, even though that had already been done in *The Moonstone* [1868, Wilkie Collins]. The hero did it, only he didn't know it. He was sleepwalking, in his nightshirt, which was rather racy stuff for Victorian times, and the crime was always unbelievably complicated. In mystery novels. I mean, nobody ever just grabs the vase and runs, or shoots somebody in a fit of temper, and at the very end, when you think you've got it all figured out, there's one last plot twist, and the crime's always very carefully thought out, with disguises and alibis and railway timetables and they have to include a diagram of the house in the frontispiece, showing everyone's bedroom and the library, which is where the body always is, and all the connecting doors, and even then you don't have a prayer of figuring it out, which is why they have to bring in a world-famous detective — "

"Who solves it with little gray cells?" I said.

"Yes. Hercule Poirot, that's Agatha Christie's detective, and he says it isn't at all necessary to go running about measuring footprints and picking up cigarette ends to solve mysteries like Sherlock Holmes. That's Arthur Conan Doyle's detective — "

"I know who Sherlock Holmes is".

"Oh. Well, anyway, Poirot says all you need is to use *the little gray cells* and think about the problem".

"And we'll be able to find the bishop's bird stump. Here. In 1888", I said, unconvinced.

“Well, *it* won’t be here, but we’ll be able to find out where it is from here”, she said, beaming.

[...]

“I’m babbling, aren’t I? Just like Lord Peter. That’s Dorothy Sayers’ detective. Lord Peter Wimsey. He and Harriet Vane solve mysteries together. It’s terribly romantic, and I’m doing it again, aren’t I? Babbling, I mean. Drops have that effect on me”.

[...]

“Get some sleep”, she whispered. “You look dreadful. You need to get your rest so you can help me keep Tossie and Terence apart in the morning. I’ve got it all worked out” (WILLIS, 1998, p. 204-206, author’s emphasis).

In truth, all of Verity’s plans go awry quite immediately. But what is interesting about this novel is that even if the reader solves the mystery of Mr. C’s identity before it is revealed to the characters, the story does not lose any of its value, in fact it gains a new level of comedy. As for the mystery of the theft of the bishop’s bird stump, it is entrenched in time travel, and so it is less likely to be solved by the readers alone, because it virtually escapes the trappings of traditional detective fiction. But only virtually — if the reader can see through all of the complicated time travel world building, they *can* figure it out.

The resolution to Mr. C’s identity is a clever trick. Once the butler is involved with the cat’s mystery, it is unlikely that he will turn out to be a significant part in other mysteries. And so by making Blaine be Mr. C, Willis is keeping with the tradition of the butler being a popular choice of culprit. In the same way, the relationship between Verity and Ned falls into the same path treaded by Peter Wimsey and Harriet Vane, where they end up romantically entangled. Like we said before, *To Say Nothing of the Dog* is a parody of mystery novels, but for it to be a parody it has to be a mystery novel as well. There are some who might relate the practice of parodies to scathing criticisms and malicious mockery of what is being parodied. But a parody demands that the artist appreciates the form that they are parodying, and so we can say that parodies are more likely to be expressions of admiration and flattery, rather than a derogatory practice. *To Say Nothing of the Dog* follows in the tradition of works like Miguel de Servantes’ *Don Quixote* (1605), Jane Austen’s *Northanger Abbey* (1817), and William Golding’s *Lord of the Flies* (1954).

For example, when the thief of the bishop’s bird stump is revealed to be a character called Mrs. Brittner, another fan of mystery novels, the following interaction happens:

“You must be Miss Kindle. I understand you are a fan of mystery novels, too”.

“Only those of the Thirties”, Verity said apologetically.

Mrs. Brittner nodded. “They are quite the best”. She turned to me. “I read a great many mystery novels. I am particularly fond of those in which the criminal nearly gets away with the crime” (WILLIS, 1998, p. 461).

When Ned stammers that they do not have enough time for lengthy explanations of the criminal’s actions, Mrs. Brittner replies like so: “ “Nonsense”, she said, starting down the corridor. “The criminal is always given a chapter in which to confess his sins” ” (WILLIS, 1998, p. 461). And what follows is a scene where the characters are actively aware that they are in a moment from a detective novel, though they are not aware that they are fictional characters in a mystery novel. If they were, they would be just like the characters from a James Joyce novel — aware of their own status as fictional puppets following the whims of an omniscient writer. In other words, the characters never break the fourth wall. For us, though, the revelation the characters come to at the end of the novel in regards to time travel is more relevant.

“*The Fountain Pen Mystery* and Hercule Poirot”, I said. “We’ve been looking at this the wrong way around. What if the rescue of the cat wasn’t the incongruity? What if it was part of the continuum’s self-correction and the real incongruity had happened earlier? Or later?”

[...]

“There wasn’t any increased slippage on Verity’s drop”, I said, “even though five minutes either way would have kept her from rescuing Princess Arjumand. So would the net’s failure to open, but neither line of defense worked. And why did the slippage on my drop send me to Oxford to meet Terence, keep him from meeting Maud, and loan him the money for the boat so he could go meet Tossie? What if it was because the continuum wanted those things to happen? And what if all the signs we saw as indications of breakdown — my being bounced to the Middle Ages, Carruthers being trapped in Coventry — were all part of the self-correction, as well?” (WILLIS, 1998, p. 453, author’s emphasis).

And this *is* the case. All of what happened, all of the incongruities and such are part of the net’s self-correction plan. We might equate this technological system to be so well engineered that it has almost developed a conscience of its own. At the tail-end of the novel, the characters speculate that the true focus of the incongruity that kick started the net’s self-correction programming will happen over six hundred years in the future, on June fifteenth, 2678. Therefore Mrs. Brittner’s stealing the bishop’s bird stump is not the incongruity, and it was meant to happen as a part of the net’s attempt to conserve History — even if that means allowing objects from the past to traverse time into the future.

We may see this as something that the net has to allow in order to avoid greater changes to the past. “We were intended to find the bishop’s bird stump and return it to the

cathedral. [...] our discovery that nonsignificant treasures could be brought forward through the net were all part of the same huge self-correction [...]” (WILLIS, 1998, p. 489). This new discovery, however, has the unfortunate repercussion of dooming Ned to continue going to the past in search of lost treasures, such as the scrolls burned in Alexandria, and Nero’s fiddle. Perhaps the continued practice of treasure hunting is what eventually leads to the incongruity six hundred years in the future.

Willis’ novel, then, utilizes the Bootstrap Paradox in the way we have already described: everything predetermined, with its characters being pawns in fate’s cosmic game of chess. Ned reflects that he and Verity did not make a good detecting team, once he realizes that they played the parts they were supposed to play unwittingly, and only realizing this after the fact. Like we mentioned before, they were conveniently tucked away by the net when it did not want them to interfere with anything. In other words, Willis uses her heroes as figures of narrative conservation.

The same approach is taken by Steven Moffat in the script he wrote for *Doctor Who*’s fiftieth anniversary celebration in 2013. In “The Day of the Doctor”, the titular character has to decide whether to destroy his own race of people in order to spare the universe from the apocalyptic catastrophe of the war between the Daleks and the Timelords (the Time War), or to step away from it and let the universe get destroyed in the conflict. When he is about to exterminate his own home planet, the weapon he is going to use — called simply The Moment —, so powerful it has a conscience of its own, decides to try and talk him down. “How do you use a weapon of mass destruction when it can stand in judgment of you? There is only one man who would even try” (HURRAN, 2013). Its plan is to show what kind of man he is going to become if he destroys Gallifrey. And so the Doctor interacts with two future versions of himself in an incredibly complex time travel story.

Ever since its return in 2005, the Doctor has been portrayed as a battle-scarred soldier carrying the weight and trauma of genocide on his shoulders. So it seems that his decision has already been made when we watch “The Day of the Doctor”, and so the audience is just waiting to see how he did it. However, Moffat twists this idea in order to make it so that his hero actually saves Gallifrey and defeats the Daleks at the same time. Thirteen different incarnations of the character are called to help, and so we are presented with the idea that the Doctor has been working on saving Gallifrey since before the Time War started. The problem to solve, now, becomes one of narrative conservation. How to keep the previous seasons of the series consistent?

Moffat's solution is to come up with the idea that the character will not remember having tried to save his home planet, because the time streams are out of sync. And so the youngest version of himself (played by John Hurt) realizes that he "won't remember that [he] tried to save Gallifrey, rather than burn it" (HURRAN, 2013). He has to live with that. And so only the oldest version of the character (Matt Smith) is able to remember his actions correctly and free himself from his guilt and move on from his trauma. And all of this was possible via the usage of the Bootstrap Paradox by the hero, albeit, its function varies slightly from what we have seen so far.

Instead of the usual despair of an endless cycle of pain, the Bootstrap Paradox in this episode of *Doctor Who* is the narrative tool that frees the Doctor from pain. And so the character that we see being played by Christopher Eccleston, David Tennant, and the early years of Matt Smith are all suffering from a misconception of what they did during the final days of the Time War. The narrative, therefore, is conserved, and the character arc remains the same. Some may think this undercuts the emotional gravitas of the earlier seasons in retrospect, but that is subjective opinion, and not particularly relevant to our discussion. What matters to us is that here, too, the hero is used as a figure of narrative conservation. And in fairness, the status quo of the Doctor's fictional universe is maintained. He goes on to fight the Daleks — like he had always done —, who are still the Timelords' biggest foes.

The Bootstrap Paradox is also a part of another episode of *Doctor Who* written by Moffat. This one is called "Heaven Sent" (2015), and the script is almost entirely a monologue given by the Doctor (here played by Peter Capaldi). Trapped in a mysterious, revolving castle in the middle of the sea, the Doctor is pursued by a cloaked, monstrous figure that invokes the Doctor's personal fears. When getting trapped by this figure, the Doctor admits that he is scared of dying. The figure, then, stops and the castle reconfigures itself, changing its architecture. Jumping out of a window into the sea, the Doctor finds that the bottom of the ocean is filled with skulls. He comes to the conclusion that he is trapped in a torture chamber.

Finding remnants of his predecessors throughout the castle, he investigates and explores his surroundings searching for a way out. Looking up at the night sky he is puzzled by the location of the stars, which seem to be in the wrong place. And when he comes face to face with a thick wall made of a mineral that is harder than diamonds, the pursuer catches up to him and fatally wounds him. Stirred up by the memories of his dead companion, the Doctor finally understands the full extent of the situation he is in:

“This place is my own, bespoke torture chamber — intended for me, only. But all those skulls in the water? How could there have been other prisoners in my hell? The answer, of course, is there never were any other prisoners. And the stars. They weren’t in the wrong place. And I haven’t time traveled. I’ve just been here a very, very long time” (TALALAY, 2015).

After that, the Doctor kills himself to power up a machine that is at the heart of the castle, one that contains the memory of him as he was when he got to the castle for the first time. His new-found knowledge, therefore, is lost, and he is literally reset to repeat his stay in the castle again. By the end of the episode, when he is able to escape the castle, the Doctor has spent four and a half billion years killing himself. The most interesting aspect of this episode, to us, is that all of the mechanics and themes associated with the Bootstrap Paradox are in play, except for the fact that this script does not contain actual time travel. This story works with it in a metaphorical fashion, the reason for this is that the Doctor needs to escape this loop, and if the Bootstrap Paradox was actually literal, it would be unlikely for him to find a way out. In “The Day of the Doctor”, he did not break the endless cycle of the Bootstrap Paradox, he perpetuated it. And so it stands to reason that if his situation in “Heaven Sent” actually involved time travel, he would have never been able to escape.

However, the story makes it clear that the Doctor could potentially escape his prison, if only he confesses all of his secrets to the veiled figure. Alas, he is unable to do that simply because he does not want to. He is a slave to his desires, which trap him in a cycle of fear, pain, death, and rebirth only to go through all of those things again and again and again for billions of years. “Heaven Sent” is an allegorical exploration on grief. Having lost his companion, the Doctor is unable to move forward with his life. He wants to fix it, to stop her from dying. This theme is a good segue to our discussion on the Grandfather Paradox.

4. TROUBLESHOOTING PAST LIFE: THE GRANDFATHER PARADOX

In Ray Bradbury's short story "A Sound of Thunder" (1952), a group of hunters travel back in time to hunt dinosaurs. They are told, by the time travel agency, that they must not make any kind of uncalculated change to the past, because it will likely result in catastrophic changes to the present reality that they are traveling to the past from. One of the hunters accidentally deviates from the safe path through the past. Another hunter comforts the group by saying that "all he did was kick up some dirt" (2005, p. 84). Back to the future, everything seems normal at first until they notice two differences: the spelling of English words on a sign, and the result of an important election.

Somehow, the sign had changed:

Tyme Sefari Inc. Sefaris tu any yeer en the past. Yu naim the animal. Wee taek yu thair. Yu shoot itt.

[...]

His face was cold. His mouth trembled, asking: "Who — who won the presidential election yesterday?"

The man behind the desk laughed. "You joking? You know very well. Desutscher, of course! Who else? Not that fool weakling Keith. We got an iron man now, a man with guts!" The official stopped. "What's wrong?" (BRADBURY, 2005, p. 85-86, author's emphasis).

All of this because the character deviated from the safe, calculated path and stepped on a butterfly, "Not a little thing like *that!* Not a butterfly!" (2005, p. 86, author's emphasis). This is where the commonly used term Butterfly Effect comes from: a kind of domino effect where minute changes to the past echo louder and louder through time until reality is fundamentally altered.

Before being executed, the time deviant responsible for changing the past cries, "Can't we take it *back*, can't we *make* it alive again? Can't we start over?" (2005, p. 86, author's emphasis). This plea expresses the major narrative themes involved in all time travel fiction: the ability to go back in time, correct mistakes, rid us of guilt, regret, grief, and the like. If the fictional world is governed by determinism, the characters are unable to change the past, only perpetuate it; if it is not, they can.

Robert Zemeckis' *Back to the Future* trilogy (1985-1990) is probably the most well-known narrative that works with an indeterminist approach to time travel fiction. Much of the conflict and tension in these movies come from the threat that the cherished status quo is in danger of being changed for the worse by antagonistic time-traveling forces. Perhaps this type of time travel narrative is best encapsulated in the closing lines of Kei Sanbe's manga series

Erased (2012-2016): “The future is always a fresh start. Your *will* alone engraves footprints there” (2017, p. 181-185, our emphasis). The important thing to keep in mind is that Butterfly Effects are the results of Grandfather Paradoxes.

The ability to change the past in these narratives means that the characters have agency of their own, and that nothing is predetermined. It also means that all of the characters have moral responsibilities. In Thomas Ligotti’s *The Conspiracy against the Human Race* (2010), he writes that

In the history of philosophical lucubration, arguments for determinism are traditionally the most argued against [...]. It is so because arguments for determinism step on the sacrosanct belief in moral responsibility. Even the average atheist draws the line whenever someone says that we do not have any degree of freedom and that moral responsibility is not a reality. As die-hard unbelievers, they may reject the position that moral laws descend from a higher plane unperceived by our senses; as tax-paying citizens, however, they still need to live by sublunary standards of civility. And this can be done only if free will and moral realism are the law of the land (2018, p. 82).

We touched briefly on this lack of moral responsibility when discussing the ending of Netflix’s *DARK* (2017-2020) in the first chapter of this thesis. We argued that by using a Grandfather Paradox the series avoids the criticisms of deterministic philosophy — it does not eschew moral realism. However, *because* of the Grandfather Paradox, *DARK* is also making the following argument: that we are stuck in cycles of misery and suffering due to our inability to go against our desires, and that it is sometimes preferable to go through a kind of ego death to avoid pain and find respite in the peaceful nothingness of the dark. It can be said to be a pro-suicide kind of argument, which is placed at the root of the Grandfather Paradox. At its core the concept is one of retroactive suicide: one kills one’s own grandfather before the grandfather can become a father himself, therefore preventing one’s coming into existence in the first place.

Within the strictures of commonsense reality and personal ability, we can choose to do anything we like in this world, with one exception: we cannot choose what any of our choices will be. To do that, we would have to be capable of making ourselves into self-made individuals who can choose what they choose as opposed to being individuals who simply make choices. For instance, we may want to become bodybuilders and choose to do so. But if we do not want to become bodybuilders we cannot make ourselves into someone who does want to be a bodybuilder. For that to happen, there would have to be another self inside us who made us choose to want to become bodybuilders. And inside that self, there would have to be still another self who made that self want to choose to choose to make us want to become

bodybuilders. This sequence of choosing, being interminable, would result in the paradox of an infinite number of selves *beyond which* there is a self making all the choices. The foregoing position is based in a strain of philosophical thought called determinism and is here stated in one of its strongest forms. British philosopher Galen Strawson describes this position, which is his own as a determinist, as pessimistic [...]. It is pessimistic because it turns the human image into a puppet image. And a puppet image of humanity is one of the hallmarks of pessimism.

Those who most vehemently oppose the pessimistic form of determinism are libertarian indeterminists. They hold that we have absolute free will and can make ourselves into individuals who can choose to want to make a certain choice and not some other (LIGOTTI, 2018, p. 81-82, author's emphasis).

In Hajime Isayama's *Attack on Titan* (2009-2021), therefore, Eren is free from moral responsibility, even though the person who manipulates him is a future version of himself. This means that he was born to commit genocide, and moreover that everyone he killed was simply born in order to be killed horribly and painfully by him. An important element in this work is that Eren is also able to manipulate the memories of his race. This means that he could have kept his comrades from killing him; instead opting to finish his massacre, then erasing the survivors' memories so they forget about all the horror he committed. It also means that Eren could have potentially erased his own memory of what he had done, and freed himself of his guilt. Had he done this, from an anthropocentric point of view, Eren would have been able to live in a version of his ideal world, unblemished and innocent. However, Isayama opted to go down a safer, more morally celebrated path with his story, which to us seems like a bit of a missed opportunity for quite an exciting, and daring ending to a story that has managed to reach a mainstream audience.

Regardless, in Julian Jaynes' *The Origin of Consciousness in the Breakdown of the Bicameral Mind* (1976), it is argued that the human mind was once divided into two parts, one that *speaks* and one that *obeys*, but due to evolution, this structure suffered a breakdown, and this breakdown gave origin to consciousness as we know it now. To further simplify it, humans used to be like fleshy, organic robots with tiny pilots inside us that drove us, but then both pilot and robot assimilated. So the slave part of our mind and the master part of our mind became one, and that is how consciousness was formed. Kurt Vonnegut uses the metaphor of a player piano in his first novel, *Player Piano* (1952) — a piano that can play preprogrammed music by itself.

This concept is dramatized in an episode of Netflix's *Black Mirror* (2011-) called "Playtest" (2016), where the protagonist finds himself play testing a game for a company. The game in question is a virtual reality, survival horror game which is supposed to tailor and

design itself after his personal fears. Finding himself in a haunted Gothic manor, he walks around, becoming more and more terrified. But, he has a feed of communication with the person that is applying the test on him. This voice is there to provide a source of comfort and psychological stability; it is also there to guide him through the game safely. In one particular scene, the voice tells him, “Whatever’s in there cannot harm you, but I can’t let you out unless you open that door, Cooper. *Would you kindly* open the door?” (2016, our emphasis). After following everything the voice tells him to do, it then starts to break his psyche down with psychological torture.

This is a direct reference to Ken Levine’s *Bioshock* (2007) video game, where the player is a first-person, mute character who listens to recordings that give him instructions to make progress through the story. These instructions always contain the phrase “would you kindly”. At the tail-end of the story, the player is hit with the taunting jeers of antagonist Andrew Ryan:

“The assassin has overcome my final defense, and now he’s come to murder me. In the end, what separates a man from a slave? Money, power? No. A man chooses. A slave obeys. You think you have memories. A farm. A family. An airplane. A crash. And then this place. Was there really a family? Did that airplane crash, or was it hijacked? Forced down. Forced down by something less than a man. Something bred to sleepwalk through life until they are activated by a simple phrase, spoken by their kindly master. Was a man sent to kill? Or a slave? A man chooses, a slave obeys. Come in. Stop, would you kindly? Would you kindly. Powerful phrase. Familiar phrase? Sit, would you kindly. Stand, would you kindly. Run. Stop! Turn. A man chooses. A slave obeys. Kill... A man chooses... A slave obeys... *Obey*” (LEVINE, 2007, author’s emphasis).

What follows is that the player, who literally has control over the story, is made to kill Andrew Ryan in order to progress to the next part of the story, further solidifying their status as a slave. Levine returns to this idea of the player being played, of the one with the control being controlled, in his 2013 follow-up *Bioshock Infinite*. Rather than only exploring ideas of control in a somewhat straightforward manner, Levine expands this theme to involve the concept of multiple realities.

This time the player is a first-person, speaking protagonist who seems to be in control of himself, and of his choices. He is treated as a sort of antichrist, a dangerous figure that threatens the status quo of the main location in the story. The antagonist, therefore, is portrayed as the polar opposite of the protagonist, a messianic, savior-type figure. The story begins with the search and rescue of a character called Elizabeth, who has an ability to open

portals between realities. After she is under the protagonist's protection, the story shifts to the player trying to escape the forces that want to keep Elizabeth trapped. The plot takes a turn when Elizabeth becomes attuned with her multi-dimensional hopping powers. What follows is a borderline psychedelic sequence of scenes where, as the characters hop through different realities and different times, the entire mystery-driven plot is exposed to the audience.

Elizabeth is revealed to be the protagonist's daughter that he had sold in order to pay his debts. Having regretted his choice, he tried to take her back, only to then lose her for good. It is here that the origin of her abilities is revealed. She is able to tear through reality into parallel ones because when her father tried to take her back a portal closed off severing her little finger, and so inhabiting more than one reality at once gives her the ability to transcend universes. It is of note that the game makes the player push the buttons to make the protagonist give his daughter away. There is no other option, so the choice here is not necessary; in fact it is not a choice at all. Its function is purely thematic: you do this, or you are stuck here forever. The only real other choice that the player has is to turn off the game and never play it again.

The most relevant aspect of the narrative for us comes when it is revealed that the protagonist and the antagonist are two different versions of the same man. Characterized as an active participant in the genocide of indigenous Americans, the protagonist is regretful of what he did when he was a soldier — a person whose job is to follow rules. With that, and after the loss of his daughter, he takes solace in religion rather than continue seeking it in alcohol. The choice that is presented to the audience is either to accept the baptism and become Comstock, the antagonist; or to become Booker DeWitt, the protagonist. That is the choice that separates both versions of the same man.

“Smothered in the crib”.

[Elizabeth A says,] “Before the choice is made. Before you are reborn”.

[The priest asks,] “And what name shall you take my son?”

[Elizabeth B says,] “He's Zachary Comstock”.

[Elizabeth C says,] “He's Booker DeWitt”.

“No, I'm both” (LEVINE, 2013).

Then, multiple versions of his daughter drown him. After the end credits finish, there is a scene where the protagonist wakes up in his office, calls for his daughter who is still a baby at this point, opens the door to her bedroom, and then it cuts to black. The game ends right before yet another version of the same character has to make the “choice” to sell his daughter.

The major theme of *Bioshock Infinite*, in our eyes, is regret, because it is the protagonist's regret that jumpstarts the plot. Once the protagonist is given the choice to become whichever man he wants to be, the story is inextricably bound to the Grandfather Paradox, because the idea of parallel realities is one of its major effects in fiction. This choice, however, is only an illusion. It is illusionary because either decision leads to the same tragic end. The only choice that could potentially save him is never given to him. He always gives his daughter away, regrets it, and fails to get her back. Regret is by far the most common character *motivator* in time travel fiction. What is particular to *Bioshock Infinite* is the fact that the narrative does not follow its most usual paths. Either the character finds out that they cannot change the past, only perpetuate it (making it a determinist story involving the Bootstrap Paradox), or they find out that they *can* change it, and so they change it for the better (indeterminist story, Grandfather Paradox).

Bioshock Infinite presents the audience with a world where determinism does not rule; a world with agency, moral responsibility, and free will. However, the mechanics of the game undercut these time and time again by taking control from the player and by presenting a myriad of illusionary choices that lead down the same road. The possibility of Grandfather Paradoxes in the world of the game, which is to say the possibility of fixing past mistakes, amounts to absolutely nothing, which is coherent for a text that just like *Doctor Who*'s (1963-1989; 2005-) "Heaven Sent" (2015), eschews active time travel. There is no time travel in "Heaven Sent"; in *Bioshock Infinite*, the time travel in it is passive: the protagonist is traveled through time (mostly psychically when his daughter is showing him his repressed memories)⁷, rather than traveling through it on his own accord. This trait leads to the exact polar opposite effect that "Heaven Sent" has: despite its indeterminist approach, the protagonist is unable to change anything substantial, and is trapped in his own misery until his death.

There is also, with the Grandfather Paradox, the possibility of changing the past, but changing it for the worse. *Back to the Future Part II* (1989) is an example of such approach. The conflict of the movie concerns itself with the protagonist attempting to "fix" reality after the antagonist changed it to benefit himself. From the antagonist's perspective, the reality that the protagonist wants is a kind of dystopia where he was being exploited. But the film is obviously concerned with the protagonist's desires, and so this new reality — utopian for the antagonist — is presented as a terrible place.

⁷ There is, however, physical presence in these "flashback" scenes, once the game *makes* the player push buttons on the controller to *re-make* the protagonist's past mistakes. So we see them as time travel scenes.

But perhaps the most popular *trope* in a time travel plot is one where the protagonist has lost someone that he or she loves and is now desperate to go back in time to save them. This is at the root of *DARK*, for example, where the scientist Tannhaus has lost his family in a car accident and is unable to move forward from his grief. He invents a time machine that malfunctions, creating instead two parallel realities, worlds that will be unmade when the protagonists manage to prevent Tannhaus' tragedy, therefore making it so that he never invented time travel in the first place, and also making it so that they disintegrate into dust out of existence, along with both their worlds.

This idea of trying to save the dead from dying also crops up in Tatsuya Matsubara's *Steins;Gate* (2009) video game. This work is referred to as a *visual novel*, a term that means that it is a video game where the only gameplay mechanic given to the player is the ability to make choices; it also means that there is a ton of reading to be done in order to progress through the story. *Steins;Gate* opens its story with a monologue given by the protagonist, Okabe Rintaro, that functions as a warning to his past self and to the audience, who experiences the game from his point of view. A warning about the catastrophic potentialities of the Butterfly Effect:

“Everything happens by chance. But that chance is predetermined by the will of the world. I'm not losing it. I'm perfectly fine. What I speak now is the absolute truth, not some pretentious delusion... No matter how trivial something may seem, it may change the tide in the great stream of time. Do you know what the Butterfly Effect is? If not, just look it up. Just try to understand how much care that takes. Unfortunately, I didn't give a care. If I had just realized how stupid I was, I wouldn't have lost *her*. The future wouldn't have turned out like this. But, how could I have realized that? How could I have realized that I held in my own hands the switch, the turning point that could determine the fate of all mankind? Just think about it. The average human's perception is cut off by about 99%. People are stupid animals that can only think about themselves. They live every average day of their average lives, not noticing anything that happens around them. Do they perceive something and forget it? Or do their brains not even process it? I want to tell the me back then: don't do anything careless! Don't do anything rash! Don't pretend you didn't see that! [The image of a dead woman lying in a pool of blood flashes on the screen]. Pay more attention! Conspiracy's evil hand was always closer than you had thought, always ready to trick you!” (MATSUBARA, 2009, author's emphasis)

Okabe's words state that everything in the world of this story is ruled by determinism. But he also warns us about the fragility of causality and to beware of Butterfly Effects. It seems contradictory at first, until the player realizes that the story functions in a manner where changing the past is possible — creating different timelines —, but it also contains the

Bootstrap Paradox as a framing device. In other words, all of the Grandfather Paradoxes in the story are part of one major Bootstrap Paradox that sets the plot into motion. This is the exact opposite approach from *DARK*, where all the Bootstrap Paradoxes are contained in a Grandfather Paradox that frames them and renders them nonexistent.

Steins;Gate presents the player with a determinist world. *However*, its world allows for both types of time travel narratives, determinist and indeterminist. This is where the tension and major conflict of the story comes from: Okabe *can* change the past, but can he change it *enough* in order to *actually* avoid the deaths that he is trying to prevent, or will Nature be able to *fix* his digressions, rendering his changes irrelevant? Given this, it makes sense for Okabe to reinstate his sanity to comfort himself when talking about the confusing Nature of his world.

In the everyday world, no such thing as an out-and-out determinist ever existed, since everyday people cannot shake off a sense of having free will. The best we can do is to *reason* that we are determined based on observing the common law of causality among things in the world and applying this law to ourselves. But we cannot *feel* ourselves as determined. (One philosopher has said, and possibly more have thought to themselves: “Can one *really* believe in determinism without going insane?”) Being determined in thought and deed is not experientially noticeable, only abstractly deducible. It would be impossible for someone to say “I am nothing but a human puppet”. The only exception would be an individual with a psychological disease that had induced in him the sense of being controlled by an alien force. Should this individual say “I am nothing but a human puppet”, he would forthwith be marched to the nearest psychiatric hospital, conceivably overtaken by the horror of feeling he was a human puppet controlled by an alien force working outside him or within him or both. The extent to which any of us is determined in thought and deed may be logically argued but cannot be known by firsthand experience. Determinists are only too aware that if free will is illusionary on paper, it is insuperable in our lives. To hate our illusions or hold them dear only lashes us to them more tautly. We cannot stand up to them without our world falling apart, for those who care. And those who really care cannot be anything but believers in some form of moral *realism* or “realism”, which buttresses the optimistic reality that most people call home and braces up everything you need in order to be you — your country, your loved ones, your job or vocation, your golf clubs, and, in an all around sense, your “way of life” (LIGOTTI, 2018, p. 84-85, author’s emphasis).

The game offers six different endings to its story, each one dependent on the choices that the player makes when playing it. The version of the story that we are going to be analyzing here is the one referred to as the “True End” route (a slightly unfortunate name because it implies that the other routes the player can take are not as relevant, or official, as this one.) The plot kick starts when Okabe and his childhood friend Mayuri go to a conference

together. At the building where the conference is taking place, Okabe finds a girl named Kurisu lying in a pool of blood, presumably dead. When he sends a text message to his friend Daru, he witnesses people around him disappearing, and he sees himself alone. When he comes back to it, and there are people around him going about their days as usual, Okabe runs into Kurisu, who is inexplicably alive again. He then discovers that the text message that he sent to Daru had arrived a week before he sent it. Okabe concludes that the technology he and his friends were developing is in fact a cellular device that can send text messages to the past; therefore, it is a time machine of sorts.

Okabe has been experimenting with what he calls DeLorean⁸ mails (D-Mails), the text messages that can be sent back in time and cause Butterfly Effects in the timeline — his trippy experience at the start of the story is him shifting timelines due to the impact of his D-Mail to Daru. Kurisu, who is a part of Okabe's laboratory team, now, has also managed to invent a device that allows a person to keep their memories when leaping through time. In that way, the time travel via D-Mails here is not physical, but mental. It is only a person's future memories and consciousness that leaps into their past selves. And once that happens, and their past selves' actions differ, new timelines are created depending on the level of severity that these changes cause. Often, it is mere timeline divergences that occur, which do not spawn literal new timelines.

SERN — an organization which had been researching time travel for a while and has now managed to send multiple people back through time (albeit, all these travelers ended up dying in the process of time travel) — learns of Okabe's time machine. They send an agent to retrieve it, killing Mayuri in the process. Using Kurisu's device, Okabe travels back in time to try and save Mayuri, but he constantly fails in this endeavor. After seeing her die over and over and over again, Okabe is traumatized and on the edge of his sanity. This is when Suzuha — a girl from a future where SERN governs the world due to having a time machine — tells Okabe that he has to go back to a “Beta” timeline where Mayuri does not die. He tries to achieve this by erasing the effects of his D-Mails. He then gains possession of an old computer, which allows him to crack into SERN's system and delete the evidence of his original D-Mail. The problem with this is that he realizes that he would return to a timeline where Kurisu is dead. Kurisu, for her part, tells him to do it anyway, and so he erases the evidence of his D-Mails from SERN's system, and reaches the “Beta” timeline.

⁸ A reference to the time machine in the *Back to the Future* trilogy.

After that, Suzuha comes from the future in a time machine and warns Okabe of a third World War in the future. She also tells him that the only way to prevent it from happening is to save Kurisu's life. Her father, Dr. Nakabachi, stole Kurisu's theory on time travel to publish it under his own name. He is also the one responsible for Kurisu's death. Okabe agrees to try and save her, because he has romantic feelings towards her, but he ends up killing her instead. Afterwards, distraught, he receives a text message from his future self, who tells him that he has to trick his past self into thinking that Kurisu is dead when she is not. This would allow him to maintain the sequence of events that led him to developing a time machine, and to the rest of the plot following as we have experienced it so far. With this in mind, he tries to save Kurisu again. And this time he is successful.

It is then revealed that when Okabe saw Kurisu lying in a pool of blood, she was actually lying unconscious in a pool of *his* blood, because he had put himself in front of her when Nakabachi tried to stab her. So Kurisu was not dead when he saw her there, he only thought she was. After that, his past self goes down the same road that his present self already went down — a Bootstrap Paradox here. Okabe is, then, also successful in preventing Dr. Nakabachi from stealing Kurisu's time travel theory, therefore preventing the existence of the war-torn future Suzuha came from to warn him about — a Grandfather Paradox here. The timeline that he is in now, the same one that he was at the start of the story, allows him to meet Kurisu again, though she has no memories of working with him, whereas he has plenty of those. It is implied, though, that they will work together again, and Kurisu will fall in love with Okabe again. And this is how this “True End” route version of the story ends, with a happy ending.

Steins;Gate's approach to time travel fiction is so complex and nuanced in its philosophy that it rivals *DARK*, and in many instances it manages to be even more difficult to understand than *DARK*'s. As previously mentioned, the way both stories approach the paradoxes of time travel is polar opposite. However, where they differ most is in tone. The themes are the same, but *Steins;Gate* is a much more humorous approach than *DARK*. Both have pretty similar endings, with *Steins;Gate*'s feeling more optimistic despite its determinism, and *DARK*'s feeling more pessimistic despite its indeterminism. But this has to do with where the stories leave off their characters: *Steins;Gate* leaves its characters in a happy place; *DARK* erases its characters from existence, which has a melancholic impact on the audience.

Time travel stories often do have melancholic endings, especially in determinist stories, where the hopes of fixing the past are all destroyed when the characters discover that

they are the ones that caused it to be broken in the first place. They do not always have to be the cause of their own past misery, though. The point of this type of narrative is often to communicate the irreversibility of death. And so the characters have to accept the death of their loved ones, learn to grow accustomed to living with their pain, and move forward into the future for the rest of their lives. The reason why this type of narrative is so common in time travel fiction is because it is the closest and most relatable type of story to our actual human experience, where we have to live with our mistakes, regrets, and pain, because there is no way for us to change the past — at least not yet.

Originally published as a short story, James P. Blaylock's *Lord Kelvin's Machine* (1992) was only later turned into a novel, and so its narrative structure is quite strange. "Part One" and "Part Two" are almost unrelated to the time travel plot and to each other as well. The time travel plot is used as a framing device, and so it is only really explored in the "Prologue", "Part Three" (called literally "The Time Traveler") and "Epilogue". Regardless, its plot starts with protagonist Langdon St. Ives losing his beloved wife Alice. He watches as antagonist Dr. Ignacio Narbondo shoots her in the head, a scene that plays in his mind over and over and over again, driving him to desperation and madness. A time machine that is in the possession of the Royal Academy of Science, however, offers him the unlikely opportunity of assuaging his pain.

St. Ives uses the machine to go back in time to smother Narbondo in the crib. Unable to be so cold-blooded, he tries to change Narbondo's personality by giving him twentieth century medicine to prevent Narbondo's future physical and moral deformities (a desperate, almost ridiculous attempt, but believable once the protagonist is a Victorian himself, and therefore knows little about twentieth century science.) St. Ives almost breaks himself down in his attempt to bring Alice back. Rather than having Ives fail in this, Blaylock allows his protagonist to succeed in saving Alice. By the mere fact that that was possible, we can judge this an indeterminist fictional universe, where a different timeline has been created, one where Alice is not murdered by Narbondo. As we know, this is the Grandfather Paradox at play.

Alice looked at him strangely, though. "You look awful", she said, squinting at him as if she realized something was wrong but had no notion how to explain it. He knew what she had meant to say. She had meant to say that he looked old, worn-out, thin, but she caught herself and had said something more temporary so as to preserve his feelings. "What's wrong?" she asked suddenly, and his heart sank.

He looked out into the street, where his past-time self lay invisible in the water and muck of the road. You fool, he said in his mind. I *earned* this, but I've got to give it to you, when all you have done is botch it utterly. But even

as he thought this, he knew the truth — that he wasn't the man now that he had been then. The ghost in the road was in many ways the better of the two of them. Alice didn't deserve the declined copy; what she wanted was the genuine article.

And maybe he could become that article — but not by staying here. He had to go home again, to the future, in order to catch up with himself once more.

"I won't be home but a moment", he said, glancing back toward where he had left the machine. "And when I appear again, I might be confused for a time. It'll pass, though. When you see me next, tell me that I'm a mortal idiot, and I'll feel better about it all".

"What on *earth* are you talking about?" she asked, looking at him fearfully, as if he had lost his mind.

He almost started to explain, but it was too much for him. Now that he had made up his mind to leave, the future was calling to him, and the shortest route back to it sat in the middle of the street a block away. "Trust me", he said. "I won't be gone a moment". He kissed her again, and then stepped out of the doorway, turned, and loped off, not looking back, his heart full of gladness and regret (BLAYLOCK, 2013, p. 269-270).

Back to the future, his present, St. Ives thinks there are two present-time versions of himself now. However, he is welcomed with fresh memories of the life his past self lived with Alice. He finds that he has a son now, and that all of the memories of his years of turmoil are fading away. He is literally forgetting who he used to be and remembering who he is now in this "new" timeline, where both men have, by the laws of this universe, merged into a single one again.

This is another common narrative trope in time travel fiction. The fading of memories is portrayed as Nature healing itself from the paradox caused by the time traveler. Both man and Nature can be said to be troubleshooting here: the former, by fixing the death of his wife; the latter, by healing the universe's physical law of causality. In this way, a completely separate timeline was not in fact created when he saved his wife's life. Rather, the two different fractured timelines slowly touch and become a single complete one again. This approach, therefore, strays away from David Lewis' classic explanation of the Grandfather Paradox.

It is an interesting idea that harkens back to philosophical questions such as, is a sound still a sound around no one? If a tree fell and no one witnessed it, did it really fall? The choice of having him forget his other self takes the stance that if no one sees, if no one hears, if no one remembers something happening, then it never really happened. It is an anthropocentric perspective, because it believes that in order for something to exist in the universe, it has to be witnessed by people. In other words, for things to be real, they have to have their reality validated by human perspective.

By doing this, by taking this approach, Blaylock is allowing his protagonist the happiness that is denied to a lot of characters in time travel fiction. The catch is that St. Ives is unaware of his hard-earned peace. Rather than having a pessimistic argument of accepting the weight of the past, Blaylock is making the argument that we should cherish the good things we have in our lives now, because we can never know, or rather can never remember, what will happen, or has happened, to us when we lose, or have lost, them.

It can be argued that this is a determinist approach not only because it heals causality, but also because it rids St. Ives from the moral responsibility of his actions. If he does not remember doing things, he never really did them, whether morally good or bad by society's standards. The character is not exactly being rewritten, but being reset altogether. This is the type of ending that we think would have made *Attack on Titan's* finale more challenging and therefore worthier of discussion. As it stands, the discussions about *Attack on Titan* and its hero tend to fall into the fields of binary morality and objectivism, topics that are not interesting because they offer us clear-cut, easy answers. In our opinion, these themes have been washed up since 1886 with the publication of Friedrich Nietzsche's *Beyond Good and Evil*. In fact, if Shakespeare is right and hell is empty, and if Nietzsche is right and God is dead, then we *literally* are beyond good and evil.

But going back to time travel, there is a type of time travel plot that has to do with the resetting of time rather than with its rewriting. Kei Sanbe's *Erased* is an example of this type of plot. One where a character is allowed to have their consciousness transported to the body of their younger selves and avoid the mistakes that they committed in the past, or prevent the bad things that happened before. It is kind of similar to the concept of a character in a video game having multiple lives, which is to say multiple chances of getting through a single level that never changes and so one is able to avoid getting hurt by the same obstacles that hurt them previously.

We did not discuss these narratives here because by resetting time they bypass the paradoxes of time travel. Besides, looking at these narratives from a different perspective, they can be seen as a play on the Predestination Paradox, which as we discussed in the first chapter of this thesis, have only *information* from the future traveling back to the past. And then what follows is a straightforward narrative all set in the past with the difference that the character has knowledge from and of the future now.

There *is* physical time travel in *Steins;Gate*, but the majority of it is the protagonist sending his consciousness to the past. It could be argued that this is also a play on the Predestination Paradox. We, however, did not mention this because the narrative that follows

is not straightforward and simple like it is in *Erased*, where time travel is only used as a framing device to explore a murder mystery plot. Perhaps *this* is the main trait of Predestination Paradox-type narratives: the time travel is not the focus of the story, it is only a vehicle for it. A trait that is definitely not present in *Steins;Gate*.

In David Gerrold's *The Man Who Folded Himself* (1973), the Predestination Paradox is technically present, because the novel is framed by the protagonist reading his uncle's diary. It turns out, in classic time travel fashion, that his uncle is actually a future version of himself. Interestingly enough, the view of paradoxes in this novel is oppositional to the way we have defined them — oddities rather than strict impossibilities. The novel states the impossibility of paradoxes, and even explains that the time travel in it is only illusionary, and that what the protagonist is doing with his timebelt is world-hopping rather than time traveling.

A paradox would be a violation of the laws of Nature. By definition, they're the laws of Nature. And inviolable.

Therefore, paradoxes are impossible.

Because if paradoxes were possible, then time travel would have to be impossible — otherwise, we'd have people killing their grandfathers right and left. We'd have people seducing their mothers or kidnapping their fathers. We'd have time travelers killing the inventors of time machines. We'd have all manner of anachronisms and flukes, and the laws of Nature would be violated in so many different ways, it would take the invention of a whole new science to catalog them all.

But time travel was possible. I had proved it myself.

So paradoxes were impossible.

It sounded all very neat when I explained it to myself that way. Paradoxes had to be impossible; therefore, they were. Everything could be worked out logically —

[...]

I was right that paradoxes were impossible, but I was wrong in thinking that the timestream had to be protected from them. After all, they were impossible. It wouldn't have mattered whether I had given Danny a check or not; changes in the timestream are cumulative, not variable.

What this means is that you can change the past as many times as you want. You can't eliminate yourself. I could go back in time nineteen years and strangle myself in my crib, but I wouldn't cease to exist. (I'd have a dead baby on my hands though...)

Look, you can change the future, right? The future is exactly the same as the past, only it hasn't happened yet. You haven't perceived it. The real difference between the two — the only difference — is your point of view. If the future can be altered, so can the past.

Every change you make is cumulative; it goes on top of every other change you've already made, and every change you add later will go on top of that. You can go back in time and talk yourself out of winning a million and a half dollars, but the resultant world is not one where you didn't win a million and a half dollars; it's a world where you talked yourself out of it. See the difference?

It's subtle — but it's important.

Think of an artist drawing a picture. But he's using indelible ink and he doesn't have an eraser. If he wants to make a change, he has to paint over a line with a white. The line hasn't ceased to exist; it has just been painted over and a new line drawn on top.

On the surface, it doesn't appear to make much difference. The finished picture will look the same whether the artist uses an eraser or a gallon of white paint, but it's important to the artist. He's aware of the process he used to obtain the final result and it affects his consciousness. He's aware of all the lines and drawing beneath the final one, each one not quite the one — all those discarded pieces; they haven't ceased to exist, they've just been painted out of view.

Subjectively, time travel is like that.

I can lay down one timeline and then go back and do things differently the second time around. I can go back a third time and talk myself out of something, and I can go back a fourth time and change it still again. And in the end, the timestream is exactly what I've made it — it is the cumulative product of my changes. The closest I can get back to the original is to go back and talk myself out of something. It won't be the same world, but the difference will be undetectable. The difference will be in me. I — like the artist with his painting — will be conscious of all the other alternatives that did exist, do exist, and can exist again.

The world I came from is like my innocence. I can never recapture it. At best, I can only simulate it.

You can't be a virgin twice.

[...]

The belt explained the impossibility of paradoxes this way: *if there was only one timestream, then paradoxes would be possible and time travel would have to be impossible*. But every time you make a change in the timestream, no matter how slight, you are actually shifting to an alternate timestream. As far as you are concerned, though, it's the only timestream, because you can't get back to the original one.

So when you use the timebelt, you aren't really jumping through time, that's the illusion; what you're actually doing is leaving one timestream and jumping to — maybe even creating — another. The second one is identical to the one you just left, including all of the changes you made in it — up to the instant of your appearance. At that moment, simply by the fact of your existence in it, the second timestream becomes a different timestream. You are the difference.

When you travel backward in time, you're creating a second universe at an earlier moment. It will develop in exactly the same way as the universe you just left, unless you act to alter that development.

That the process is perceived as time travel is only an illusion, because the process is subjective. But because it's subjective, it really doesn't make any difference, does it? It's just as good as the real thing. Better, even; because nothing is permanent; nothing is irrevocable.

The past is the future. The future is the past. There's no difference between the two and either can be changed. I'm flashing across a series of alternate worlds, creating and destroying a new one every time I bounce.

The universe is infinite.

And so are the possibilities of my life" (2003, p.43-49, our emphasis).

All of this is to say that in Gerrold's novel paradoxes are only considered paradoxes when there is only one timeline, or timestream, involved. This philosophy goes against the idea that the paradoxes are oddities, not impossibilities. Which means that if one goes back, kills their grandfather, creating a new timeline, it is not considered a true paradox. Oddly enough, the protagonist of *The Man Who Folded Himself* finds out that he is both his own mother and his own father, and that is always the case, though sometimes he is female, sometimes male. By the constraints of the novel, the Bootstrap Paradox is still present as it does not create new timelines; however, it is logically possible once one can go back in time and perpetuate the past. Except that the protagonist is not time traveling, but world-hopping, and by being possible, it is rendered not a true paradox either, and so most of the common traits in time travel fiction are subverted here, in a novel that does not see itself as time travel fiction.

It is difficult to picture the Grandfather Paradox occurring in a manner where no new timelines are created, but K. W. Jeter's *Morlock Night* (1979) offers us an image — a dangerous vision in the vein of Harlan Ellison and Philip K. Dick, and quite similar to Adam's Paradise in *DARK* — as to what a “true” Grandfather Paradox would do to the world:

“Indeed”, said Ambrose. “The Time Machine's inventor actually understood less about his device than he thought he did. By going between this time and that of the Morlocks he created a channel from which no deviation is possible. This time, and no other, is the only one to which the Morlocks could travel with their new device. They can only launch their invasion through this one point in their past, our own year 1892”.

“Wait a moment”, I said, frowning and turning his words about in my mind. “There's something wrong here... I've got it. If the Morlocks come back in time to their own past and wreak such havoc, aren't they endangering the chain of events that lead to their own existence? Why, they might be conquering and then eating their own ancestors! And thus obliterating their own nasty lives scores of generations before their own births!” The topsy-turvy logic of it all boggled me for a moment, and I puffed on my cigar.

Ambrose graciously inclined his head. “I admire your astuteness, Hocker. Not many of your contemporaries could follow that, let alone come up with it themselves. Indeed, it *is* a violation of the universe's natural order. This whole business of time travel is shot through with cosmic blasphemy, I'm afraid. Better to take the years as they come one by one on the string, instead of mucking about and yanking on the thread to see what's coming. Be that as it may. The paradox of the Morlocks eating their own distant forefathers is relatively minor compared to the catastrophe that threatens the Earth through their mere use of the Time Machine. And that catastrophe is the implosion of time itself, just as you saw, Hocker, before I brought you here. The year 1892 has become the hole through which the sea of time is leaking away. Even as we sit here the events of the years before and after this date are blurring into our own time. If the process is not halted and reversed, soon all time from the Earth's beginning to its end will run together into one year,

then contract into a single day, a minute, second, then — like that! Blink out of existence. Leaving that dark, timeless desert you found yourself in” (JETER, 2011, p. 74-75).

5. CONCLUSION

It is clear that we have achieved our goal of analyzing the paradoxes of time travel in Gothic Science Fiction, in particular the Bootstrap Paradox and the Grandfather Paradox. We were also successful in putting our hypothesis into question. To remind the reader, we assumed that the Bootstrap Paradox was only present in determinist stories, and its presence functioned as a pessimistic tool to show the characters that the past can never be changed. For the Grandfather Paradox, we assumed the opposite: present in indeterminist stories, its function being one of optimism, once the past *can* be changed.

Our assumptions were proven to be correct in the case of Hajime Isayama's *Attack on Titan* (2009-2021) — which worked with the Bootstrap Paradox —, and in the case of James P. Blaylock's *Lord Kelvin's Machine* (1992) — which worked with the Grandfather Paradox. However, the Nature of *Attack on Titan's* world is never made clear — whether determinist or indeterminist. What we can gather, though, is that this work explores the idea that people can only free themselves of their own desires by having their personalities reprogrammed by heavy military training. In the case of the protagonist, his abilities affected this wiring, rendering him free of the military's mentality, but dooming him to be a slave to his own primal, idealistic desires. As for the world in Blaylock's novel, it is not exactly indeterminist, once causality restores itself by having the time traveler forget his digressions through time — effectively wiping out the existence of his adventure altogether, from a humanist point of view.

In the case of Connie Willis' novel *To Say Nothing of the Dog* (1998), the Bootstrap Paradox is present in a totally determinist world, but its effect is not pessimistic, but humorous. This is due to the type of text that this novel is — a romantic comedy, which aims to eschew any sort of negative effects on its readers. This is also true of BBC's *Doctor Who* (1963-1989; 2005-) series. In "The Day of the Doctor" (2013), the optimism comes from a clarification of what the series had presented to its audience previously. The Bootstrap Paradox remains in place, but what it results in is not in the destruction of a planet and the death of billions of people. Rather it results in The Doctor's avoiding that very fate. And in "Heaven Sent" (2015), The Doctor is able to escape his endless cycle of torture because the Bootstrap Paradox is only present virtually, once there is no actual time travel involved here.

The presence of a passive, forgetful "time traveler" of sorts in Ken Levine's video game *Bioshock Infinite* (2013) leads to pessimistic effects despite the world of the story being totally indeterminist. Here, then, the Grandfather Paradox is possible but never realized; in

fact its existence is almost completely virtual. Not totally virtual once the story leads its characters through alternate realities (albeit not through time travel but through tears in the fabric of space). This weird “time travel”/world hopping trait of the story reminds us of the subversive, rebellious time travel novel *The Man Who Folded Himself* (1973) by David Gerrold, who denies its own time travel, its own paradoxes, and its protagonist denies its own status as a time traveler — considering himself a world hopper instead.

The subversion of the pessimistic effects of the Bootstrap Paradox is also present in Tatsuya Matsubara’s video game *Steins;Gate* (2009). But the world of this video game is neither totally determinist, nor totally indeterminist. This work also effectively breaks down the binary aspect of our hypothesis by making use of both the Bootstrap Paradox and the Grandfather Paradox. Here, the Bootstrap Paradox leads the protagonist to a happy ending, and the Grandfather Paradox often leads him to a lot of trauma and death.

Death, in the context of Science Fiction, is a fascinating theme, and definitely a recurring one in every work of time travel fiction we have analyzed here. An interesting question to explore about death in Science Fiction has to do with the various ways Science Fiction can offer its characters a way out of it. One can build a time machine to stop it from happening in the first place; another can learn reanimation; yet another one can build a simulation, or save people’s “souls” in the hard drive of a super-computer and render them immortal in cyberspace. What makes a character choose between these possibilities? What does that say about them?

Regardless, our study of two of the paradoxes of time travel led us to tackle several topics: destiny, tragedy, guilt, innocence, monstrosity, morality, free will, and the like. All of these being resultant of the particular approach to the mechanics of time travel in different fictional works. Mainly, they are results of deciding whether the fictional universes of these stories are ruled by determinism or indeterminism. Given the choice, the ways these topics are tackled differ drastically. But as we have seen, this philosophical decision does not have to be so clear-cut and binary.

A single fictional universe can work with both determinism and indeterminism at the same time, leading to more complex and layered depictions of time travel and its impacts on the psychology of its characters, and on the Nature of its worlds. This is a good thing for time travel fiction, because it lends more variety to the stories and keeps this mode of fiction from growing stale and falling into disuse. This, we suppose, is the main reason why time travel fiction is still so popular in contemporary culture, and will probably remain so as long as fiction writers keep finding different ways of tackling the topic.

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