



universität  
wien

# MASTERARBEIT / MASTER'S THESIS

Titel der Masterarbeit / Title of the Master's Thesis

„What is meant to be – has to be?  
The depiction of time and time travel in  
Marvel Studios' *Loki*“

verfasst von / submitted by  
Anna Rastinger, BEd

angestrebter akademischer Grad / in partial fulfilment of the requirements for the degree of  
Master of Education (MEd)

Wien, 2023 / Vienna 2023

Studienkennzahl lt. Studienblatt /  
degree programme code as it appears on  
the student record sheet:

UA 199 507 525 02

Studienrichtung lt. Studienblatt /  
degree programme as it appears on  
the student record sheet:

Masterstudium Lehramt Sek (AB) UF  
Englisch UF Psychologie und Philosophie

Betreut von / Supervisor:

Univ.-Prof. Mag. Dr. Susanne Reichl,  
Privatdoz.



## **Acknowledgments**

First and foremost, I want to thank my thesis supervisor Univ.-Prof. Mag. Dr. Susanne Reichl. It is only through her patient guidance whenever I needed help that this thesis was possible.

I would also like to thank those who encouraged me to write my thesis about a fantasy project I am truly passionate about: my closest friends, my family, and my thesis supervisor. Thank you.



## Table of Contents

<b>1. Introduction .....</b>	<b>1</b>
<b>2. Theoretical and methodological framework .....</b>	<b>4</b>
2.1 <i>Conceptualisations of Time</i> .....	6
2.1.1 Eternalism.....	6
2.1.2 Presentism .....	8
2.1.3 The growing block theory .....	10
2.1.4 Branching time .....	11
2.2 <i>Time in the Marvel Universe</i> .....	15
2.2.1 Time in the Marvel Comics.....	17
2.2.2 Time in the Marvel Cinematic Universe .....	22
2.3 <i>Determinism and free will in time travel</i> .....	25
<b>3. Analysis.....</b>	<b>30</b>
3.1 <i>Multimodal analysis of Miss Minutes' introduction to the TVA</i> .....	31
3.2 <i>Time travel in Loki</i> .....	46
3.3 <i>Behaviour of Time in Loki</i> .....	53
3.4 <i>Determinism and free will</i> .....	64
<b>4. Conclusion.....</b>	<b>67</b>
<b>5. Bibliography.....</b>	<b>70</b>
<b>6. Appendix .....</b>	<b>73</b>
6.1 <i>Abstract in English</i> .....	73
6.2 <i>Abstract in German</i> .....	74



## 1. Introduction

The idea of a narrative in any form, be it a novel, a comic book, or a TV series, completely independent of time or set in a timeless realm seems impossible. Even if the story claimed to take place in a world where time did not pass, time is necessarily experienced by the characters, because without time no action could be carried out. Any action takes time just like it takes time for the audience to read the text or watch the scene. In this sense, all narratives are always *tales of time* as proposed by Adam Abraham Mendilow (Ricoeur, *Volume 2* 101). However, the concept of time is not necessarily an explicit theme in all narratives, which is why Mendilow distinguishes them from *tales about time*, which explore how time functions, how it influences the narrative, and how it can be influenced within the narrative (Ricoeur, *Volume 2* 101). If something is ‘about’ time, it concerns itself with the nature of time within the world of the narrative and, while not the sole element, time is predominant in its content insofar that it is time itself that is at stake (Ricoeur, *Volume 2* 101).

In science fiction and fantasy genres, narratives about time often feature time travel to raise the stakes since this endangers the flow of the past, the present and the future. Examples for the growing fascination with exploring, controlling, or travelling in time include recent time travel movies such as *The Adam Project* (2022) or ongoing time travelling TV series like *Loki* (since 2021) and *Doctor Who* (since 1963). Jowett and Simmons (163) take on the example of *Doctor Who* to claim that contemporary media is obsessed with time that deviates from its standard experience. For instance, people are interested in seeing certain counterfactual ‘what if’ scenarios play out on the small or big screen, in which the familiar past is rewritten (Jowett, Robinson, and Simmons 1). Ginn and Leitch (xiii) point to several reasons for the continuous success of time travel tropes, such as the ability to start over or the possibility to right a wrong in the past. Time travel television therefore offers a combination of familiarity and novelty, which is essential for contemporary TV to keep viewers’ interests in this world of fast-paced media consumption (Cristofari 28). As an established trope, the concept of time travel provides a flexible framework which the audience is familiar with and can thus utilise to make sense of new content, for example when the rules of time travel vary between franchises (Cristofari 27). Consequently, the audience is given reference points, with which they can orientate themselves. But, at the same time, they are faced with the tasks to figure out the underlying structure of time, the motivations for time travel, and its consequences in a particular publication (Cristofari 28).

It is therefore not surprising that the Marvel Universe, a franchise of superhero stories, which to date contains more than 500,000 pages of comic books and 32 feature films among other narratives, explores the concept of time travel as well. Here, the individual instances of publication are connected into one Universe, termed ‘the biggest story ever told’ by author and superfan Douglas Wolk in the subtitle to his book *All of the Marvels*. However, the Marvel Universe is not a storyline written by a singular author but rather produced by a plethora of creators with unique and possibly contradicting visions. It is thus necessarily heterogenous, and this concerns temporality as well. While the Marvel superhero comics tell stories which might not always be set in a perfect linear chronology, they are nonetheless organised along a timeline which the audience can trace back to the origin story of any given character. Ever since the introduction of time travel in the Marvel Universe in *Fantastic Four #5* (1961), written by Stan Lee and pencilled by Jack Kirby, this timeline is in constant danger of being altered.

Still, the specifics of time travel and the underlying nature of time in the Marvel Universe are rarely addressed and can mainly be inferred from sparse explanations and the consequences of time travels. It is only in the TV series *Loki* (2021), produced by Marvel Studios and directed by Kate Herron, that the behaviour of time is the focal point and explicitly visualised, hence lending itself to an analysis of time. In this thesis, I therefore aim to answer the following research question: How are time and consequently time travel depicted in Marvel Studios’ *Loki*? To explore the topic with a clear focus and to guide my analysis, I will concern myself with two sub-questions as well. The first regards the relevance of understanding how time behaves in the TV show for understanding the Marvel Universe and asks: How is this depiction influenced by its contextualisation within the Marvel Cinematic Universe (MCU) and its origin in the Marvel Comics? Additionally, I aim to explore the intradiegetic implications of time travel for the characters by answering the second sub-question: What ethical considerations follow from this depiction? I will hereby focus on the debate of determinism and free will to analyse the degree of agency the characters Sylvie, Loki, and Kang possess and the ethical implications of their actions.

In this thesis, I will analyse the concept of time in the TV series *Loki* based on the theories of eternalism, presentism, time as a growing block, and branching time. In the literature review, I will introduce these theories, their perspectives on time travel, and their ethical implications for time travellers. Therefore, I will refer to philosophical and literary secondary sources, including but not limited to the exploration of time travel in the Marvel Comics by Chris Gavalier and

Nathaniel Goldberg, Sean Power's introduction to the philosophy of time, and Ryan Wasserman's discussion of *Paradoxes of Time Travel*. Additionally, I will include theoretical insights into the representations of time in the Marvel Universe. As a result, the secondary sources vary in their focus from general philosophical, ethical, and physical considerations of time to the behaviour of time in Marvel in particular. While there is a growing selection of academic materials on the Marvel franchise, I will refer to non-academic texts, such as fan-written online sources, as well. One reason for this choice is that *Loki* is a rather new publication. There is little theoretical writing on this particular show whereas fans have already thoroughly discussed the episodes and their links to the Marvel Universe. While it cannot be taken for granted that all information on these online sites is perfectly accurate, I believe that there is great relevance in incorporating the arguments of people who continuously interact with the Marvel Universe. Hills (191) even notes that fan-made tertiary texts such as fanfiction and episode guides help look at the intertext, for example in a TV series. Often, fan-produced guides to a show are more detailed and accurate than professional program or episode guides (Hills 192). Especially in the case of Marvel, there is a wide fandom that can infer connections between events and characters, find so-called easter eggs hinting at the Marvel Comics, and theorise future occurrences quicker and more precise than an academic text might. I argue that this fandom is a resource that should be utilised rather than neglected when discussing the broader framework of the Marvel Universe and key concepts within it, such as time and time travel.

Regarding the practical application of these theories, I will conduct an analysis of the primary material, the six episodes of the first season of *Loki*, with a focus on the visual, aural, and descriptive portrayal of time in the series. This analysis will consist of two interdependent parts, namely a multimodal analysis of one longer scene and a selective analysis of the first season. In the first part, I will investigate how the show portrays the theory of time in the Marvel Cinematic Universe by examining a scene introducing the backstory of the so-called Sacred Timeline. This scene occurs in the pilot episode titled "Glorious Purpose", lasts from 08:31 to 11:53 minutes, and contains essential insights into the intradiegetic behaviour of time and necessary context for the further analysis. Here, the aim is to infer the show's underlying nature of time, which is never explicitly named, through implications of the mise-en-scène, the visual and aural representation of time, and the scene's dialogue. The second part then draws on all six episodes to analyse the related concepts of time travel, the behaviour of time, and determinism and free will. These concepts are the focal point of the plot but are scarcely

depicted, which requires a broader range of the primary material to be able to conclude the theory of time in *Loki*.

This thesis will thus consist of a literature review of selected theories of time, namely eternalism, presentism, time as a growing block, and branching time. In addition, it will feature an overview over time travel according to these theories, time in the Marvel Universe, and the implications of time travel for free will. Moreover, I will analyse the depiction of time and time travel in the first season of the TV series *Loki* produced by Marvel Studios. My thesis is that the show represents a multiverse of branching timelines, in which the individual timelines and the entire multiverse behave like a growing block. The past is determined and immutable while the future is indetermined and can be influenced by present actions. Evidence for this statement can be found in the visual depiction of timelines as dynamically growing and in the asymmetry of time travel, which allows the characters to travel to the past but not to the future. However, the rules for time travel in branching time in *Loki* differ from the commonly assumed rules, which have been established in the Marvel Comics and Marvel Cinematic Universe. For the sake of the plot, where it is necessary to travel in time without causing new branches, the series has consequently created its own concept of time which is heavily reliant on the growing block theory but contains elements of eternalism and unique deviations as well. The characters in the intradiegetic universe thus possess free will and the agency to determine their own future but this agency is externally restricted by the Time Variance Authority (TVA) to ensure the victory of its ruler, Kang.

## 2. Theoretical and methodological framework

In this first part of the thesis, I will provide a concise overview of theories of time and temporal structures within the Marvel Universe (MU). I aim to build a theoretical framework of the concepts themselves and their practical application and relevance in the Marvel Universe to then draw on this framework to analyse the nature of time in *Loki*. Before discussing the possible concepts, I will define the term ‘time’ to explain how it will henceforth be used in this thesis. I will hereby draw on the philosopher Sean Enda Power and his distinction of *Theoretical Time* and *Folk Time*, which he sketches in his 2021 *Philosophy of Time: A Contemporary Introduction* (5-10). Folk Time is conceptualised as the way we ordinarily experience and talk about time and, in this sense, time could be either a thing, a property of objects or a relation

between entities. Moreover, time can be felt through change or persistence. Power fittingly gives the example of waiting at the dentist where time passes subjectively more slowly. Theoretical Time, in comparison, is described from an objective point of view, is measured by clocks, and disregards an individual's subjective perception of time. My literature review and analysis will be concerned with Theoretical Time, the underlying conceptualisation of how time works in a real or fictional world and what consequences this concept has on the individuals in it and on time travel.

Additionally, I find it essential to define the term 'time travel' even though we are constantly confronted with the idea of it and understand its meaning intuitively. I will start the definition from Power's criticism that the common-sense idea that "X time travels if X travels to *other times*" (*introduction*, 266) is insufficient. After all, we could all be time travellers according to that definition if we simply existed from one moment to the next. To count as time travel according to Lewis (358) a journey needs a discrepancy between the duration of the travel and the duration of time between departure and arrival. If a time traveller travels ten years into the future in one minute, then there is necessarily a discrepancy because the time passed – namely one minute but also ten years – is not identical. This discrepancy paradox was formulated by Dennis Holt and can be solved by referring to external or objective time in contrast to the time traveller's subjective or personal time (Wasserman 4). Wasserman thus defines time travel as a travel that "*occurs only if, and in that case because, there is a discrepancy between external and personal time*" (6) and it is this definition that I will refer to henceforth. A possible argument against such a definition would be that travelling to another time zone leads to a discrepancy as well, but Wasserman (8) rightfully states that by setting back the clock, for instance, one does not travel back in time.

Similar to the great number of definitions of time and time travel, there exists a variety of concepts that describe how time functions and behaves. Philosophies of time have been disputed since Aristotle who described time as fully surrounding us without us being able to produce time ourselves (Ricoeur, *Volume 3* 12). From Aristotle to Augustine to Ricoeur, from Newton to contemporary media studies, the experience of time and the possibility of interfering in it have been discussed from philosophical, linguistic, and physical viewpoints among others. The main debate concentrates on the reality of time, meaning what *in* time and what *of* time can be considered 'real'. While it is generally accepted that present things exist, there are great divergences concerning non-present things, which leads to the theories of presentism and

eternalism on either side of this discussion (Viebahn 2963) which I will concern myself with in detail below.<sup>1</sup> As it is my aim to analyse the depiction of time travel in the Marvel Universe, I will limit myself to introducing the four concepts of time which Chris Gavalier and Nathaniel Goldberg have identified in the Marvel Comics. In their article “Dr. Doom’s philosophy of time”, they reconstruct timelines and the underlying nature of time in early Marvel Comics and recognise the concepts of eternalism, presentism, the growing block theory, and branching time, which will be the focus of this chapter. The former three theories discuss the reality, or experience, of time while branching time describes the behaviour of time, meaning how time can be visualised, for instance through timelines. Evidently, the philosophical and physical views on time are based on our world. However, this thesis is concerned with the nature of time in the fictional world of the Marvel Universe in the example of *Loki*. I will thus not include the physical background, or the objections scholars have made to the plausibility of each concept.<sup>2</sup>

## 2.1 Conceptualisations of Time

### 2.1.1 Eternalism

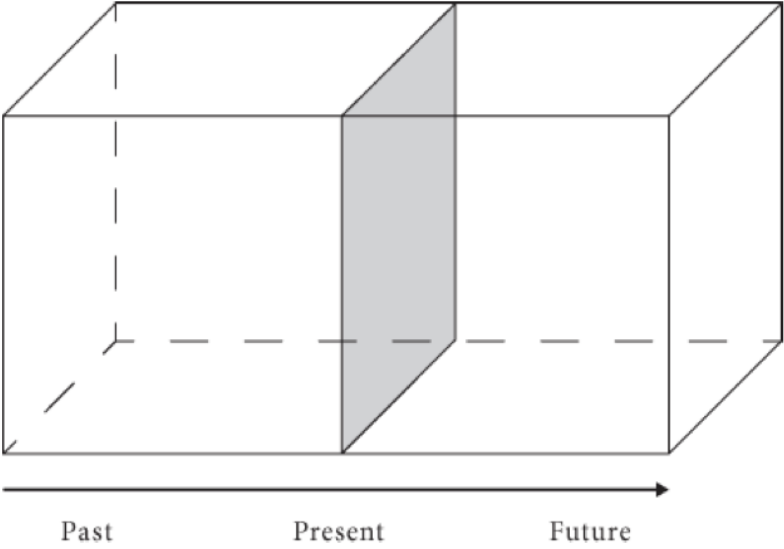
The concept of eternalism claims that all moments in time exist simultaneously, i.e., the past and future are ontologically identical with the present (Gavalier and Goldberg 322; Currie 15). Events are described as having occurred earlier or later than other events but while present things are intuitively real, past and future ones are just as real (Currie 15). This theory is often summarised with other concepts, such as the growing block theory, under the umbrella term ‘non-presentist theories’ (Power, *introduction* 51), but I will treat both frameworks as distinct and discuss the growing block theory separately later. Non-presentist here means that the focus on the present as superior is seen as egocentric and too subjective as it always depends on the perspective of one person (Currie 15). Eternalism allows the sequencing of events as earlier or later but nevertheless assumes that all these moments are equally real in a reality that spans all four dimensions, the spacetime (Rovelli 1328). As all moments in spacetime are always real and do not become more or less real, there is no passing of time since the metaphysical reality of the moments has not changed even if a moment that was in the future is now the present

---

<sup>1</sup> Philosophy of time encompasses a plethora of different perspectives and theories, which I cannot address in this thesis. For a summary of time in philosophy refer to *The Oxford Handbook of Philosophy of Time*. Ed. Craig Callender. Oxford: Oxford UP, 2011.

<sup>2</sup> For further insights into the issues of time travel in our world, I would recommend Mozerky’s criticism of presentism, Rovelli, Wasserman or Currie.

(Rovelli 1326). Time is thus, counterintuitively, not dynamic and often described as a ‘block universe’ as can be seen in graph 1 below. The universe exists as a block that is always there in its entirety and, just like people passing houses on a block, time moves in a fixed order in which some houses are passed earlier while others still lie ahead (Larsen 217).



Graph 1: Illustration of the ‘block universe’ (taken from Wasserman 24)

To clarify these claims of eternalism and explore its explanation of time travel, I will turn to an analogy with space travel by Gavalier and Goldberg (323). All moments in time exist just like all points in space exist regardless of whether I am currently there or not. Time therefore exists in the form of an eternally fixed timeline but because time and space are interdependent in spacetime, it is simpler to image the timelines as universes that contain objects, beings, and more. Given that all moments in time exist simultaneously, all events that occur are immutable facts because they must take place in exactly this manner and order to create a particular timeline, or universe. Whether a time traveller visited a moment in the past or in the future, the facts about this moment have existed earlier than the time travel and continue to exist later. This suggests that a time traveller could not change anything even if they tried because what happens in these moments is already determined before the time travel.

This behaviour is illustrated in *Fantastic Four #5* (1961), the very first time travel narrative in the Marvel Comics (Gavalier and Goldberg 322-323). In this issue, disguised Fantastic Four member Ben Grimm travels to the 1700s and realises he is the one known as Captain Blackbeard and, moreover, that he is *always* Blackbeard as Gavalier and Goldberg (323) emphasise. It is

eternally fixed in time that Grimm travels back but then becomes Blackbeard and, because he has become Blackbeard, he has to travel back again to fight him but, once again, becomes him, which, again, causes him to have to travel back in time. This is an example of a causal loop, which seems to be necessary for time travel to be plausible in an eternalist universe. A causal loop is by definition “a sequence of events in which each member is a cause of its successor, and where the final member is a cause of the first” (Wasserman 146). According to eternalism, an alteration of the timeline can therefore only succeed if it has always occurred that way and has been, in a way, fated to happen.

### 2.1.2 Presentism

As suggested by its fitting term, presentism revolves around the present. More precisely, presentism argues that only the present exists since the past has already passed and the future will but does not yet exist (Gavaler and Goldberg 323). Once again, I refer to Wasserman for an illustration of this concept since his visualisations are simple yet accurate and allow for a proper comparison between the three theories of eternalism, presentism and time as a growing block. As can be seen in graph 2 below, presentism lacks the blocks of the past and future that are contained in the block universe of eternalists.



Graph 2: Illustration of presentism (taken from Wasserman 25)

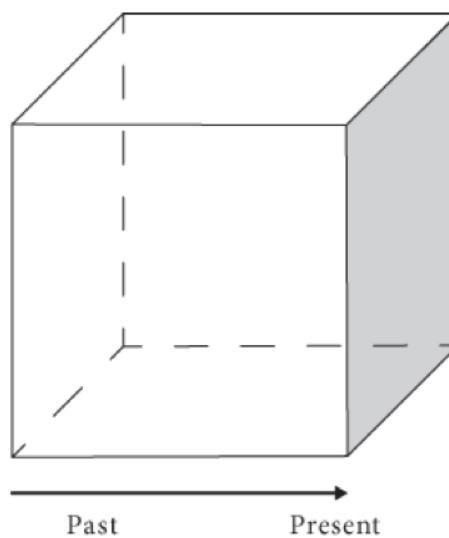
Speculating on time travel, one might ask how travelling to a time other than one’s present could be possible and might conclude that, according to presentism, time travel must be impossible. However, the theory argues that time travel is not implausible since a time traveller brings certain points in time into existence when travelling there (Gavaler and Goldberg 322).

The traveller brings their present into a point in the past or future that did not presently exist, thus making it the traveller's existing present at arrival (Gavaler and Goldberg 322). In comparison to eternalism, where all moments are always fixed in time, no moments outside of an individual's present exist for that person (Gavaler and Goldberg 322). In turn, the past and future can be easily changed by the time traveller since the past and future and its associated facts only come into existence through their arrival and have not been determined before (Gavaler and Goldberg 322). But as Gavaler and Goldberg justly point out, claiming that the point of arrival comes into existence through the arrival is merely "sidestepping a worry" and not "responding to it" (337). This problem is also known as the 'no-destination objection', which is often used to object to the possibility of time travel if the nature of time was presentist (Wasserman 39).

Within the MU, there are only few stories suggesting a presentist nature of time, but it is difficult to determine because for it to be evident, changes in the past would have to be possible which did not happen just that way. It is unlikely that contributors of Marvel Comics decide to alter the past that has been established since such an alteration would have drastic effects on the cause-and-effect chains within the continuity of the Marvel Universe. Nonetheless, some time travel stories, such as Roy Thomas' *Avengers #56* from 1968, imply that change *can* but merely *should not* be brought about when time travelling (Gavaler and Goldberg 324). Captain America warns his colleagues not to interfere with the events even if that means letting his childhood friend 'Bucky' Barnes die, which was their motive behind travelling to the second World War (Gavaler and Goldberg 324). The reason for the warning, however, lies not in it being metaphysically impossible but in the possible repercussions of intervention, suggesting that the past should not be changed because it promises danger (Gavaler and Goldberg 324). In the end, the *Avengers do* interfere and help an unconscious Bucky escape, which could speak for presentism but as Gavaler and Goldberg (324) point out, this might simply be another example of eternalism. After all, Bucky still dies and has no memory of being saved by a time-travelling Captain America so that the alteration does not affect the present and can retroactively be explained through an eternalist perspective, according to which the change was always meant to happen.

### 2.1.3 The growing block theory

The growing block theory, in short, understands time as a growing block of past and present where slices of time are continuously added as they pass (Miller 225). These slices can be defined as three-dimensional hyper-planes that occur at the same time, meaning that they are “objects, properties and events [that] are space-like separated but not time-like separated” (Miller 225). Analogous to presentism, the future is deemed unreal but once a moment in the future becomes present and then past, it becomes real and part of the increasingly growing block of reality (Thomas 527). In relation to presentism and eternalism, Power (*perceptual experience*) therefore defines the growing block theory as behaving “like eternalism with respect to the past and like presentism with respect to the future” (35). Contrasting the growing block theory with the illustration of eternalism, or the block universe, the growing block theory can thus be visualised as the block universe minus the future or presentism plus the past, which is depicted in Graph 3. In general, the growing block theory counts as one view on the nature of time but there are internal differences in opinion among growing block theorists. They do, however, share the two theses that the past and present exist while the future does not, and that time passes constantly (Perovic 623).



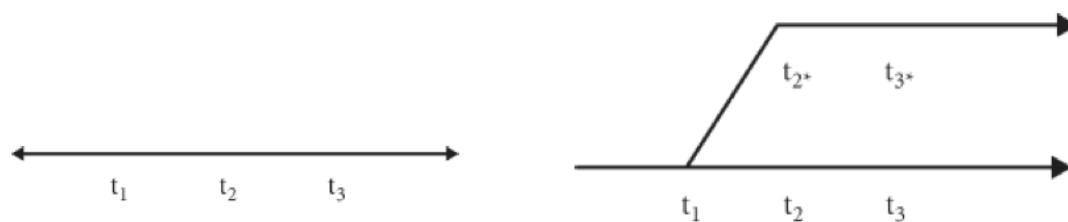
Graph 3: Illustration of the growing block theory (taken from Wasserman 26)

Gavaler and Goldberg suggest that this concept can be linked to Aristotle’s understanding of time since for the philosopher “it was neither true nor false that there will be a sea battle tomorrow” (325). The future, in other words, is not yet determined in the present and therefore actions in the present affect the future just as causes in the past have effects in the present.

Concerning time travel, the past is fixed in the block and cannot be altered but the future remains open for change (Gavaler and Goldberg 325). In the Marvel Comics, this conceptualisation of how time travel functions was introduced by writer Steve Gerber when the Guardians of Galaxy travelled back in time from the year 3015 to the 20<sup>th</sup> century to stop the alien invasion of the future in the issues *Defenders #26* and *Giant-Size Defenders #5* (Gavaler and Goldberg 325). Here, the past and the future of the 20<sup>th</sup> century present are known but, in contrast to eternalism and presentism, they are neither fully determined nor freely mutable. By travelling to the present of the comics and taking actions there, the Guardians were able to alter future events whereas this would not have been possible by travelling to the past. In the 1970s, writers such as Gerber utilised the growing block theory in their storylines but its applications in the Marvel Comics were neither consistent nor exclusive since different contributors seemed to define time independently of a more coherent, bigger picture (Gavaler and Goldberg 325). Just this little insight into time travel in the Marvel Universe so far shows the complexity and inconsistency of conceptualising time travel and the nature of time in the Marvel Comics. It is inherent to the genre of comic books that different voices cooperate to build the multitude of storylines and this inevitably leads to a variety of concepts of time built upon and consequences for time travel explored.

#### 2.1.4 Branching time

In addition to the theories above, which argue what aspects of time are ‘real’, concepts of time can also be concerned with the possible visualisations of time. All of these theories explore the behaviour of time but the two main perspectives in the latter category, linear and branching time, explicitly analyse how one or multiple timelines can be graphically visualised. In comparison to linear time, where events are ordered along a single linear timeline of past, present and future, branching time allows for a branching of the timeline or of multiple timelines at points of divergence (Gavaler and Goldberg 326-327). Graph 4 below shows a simplified comparison of linear and branching time but, of course, not all scholars agree that time can be visualised as either a clear timeline or as branches. One example is Henri Bergson, who claims that space and time are two parts of a dualism, and that time is fluid in a manner that could not be represented by a timeline of successive events (Powell 17).



Graph 4: Linear time (left) and branching time (right) in comparison (taken from Wasserman 79)

Within the theory of branching time, there are disputes as to what exactly counts as a point of divergence, leading to a number of sub-theories that differ with respect to the questions if branches are created or always exist, how branches are created if they are created and if branching of the future is possible. Some theories assume that any event happening that was not supposed to happen creates a branch on which this event does happen whereas it does not happen on the original timeline, or time continuum (Gavaler and Goldberg 326). The branch would then flow parallel to the original timeline from that point onwards (Gavaler and Goldberg 326-327). Another perspective claims that every decision we make creates a new timeline, which is why there are infinite timelines (Ginn and Leitch xiv). This claim can be traced back to the origins of the branching time theory, which lies within the many-worlds interpretation of theoretical physicist Hugh Everett in the late 1950s (Wittenberg 219). Everett proposed that for every slightly different behaviour of every electron or another quantum object, there is a parallel world in which it behaves that way (Powell 52). Everything that can happen, does happen in some universe. Everett's proposal therefore fits into the theory of the multiverse, according to which we live in a multiverse made up of multiple universes (Deutsch and Lockwood 379). The term multiverse here means the entirety of all possible timelines or universes and is equal to the term Reality with a capital R, with the individual universes commonly assumed to be able to interact (Larsen 218). The reason why alternative timelines are often referred to as alternative universes (Gavaler and Goldberg 328) or parallel universes (Cristofari 30) is that the creation of a time branch cannot be independent of the creation of space, objects and other facts. The term 'multiverse' has recently become a house-hold name, especially due to its increasing relevance in the Marvel Universe, which is almost omnipresent in today's media. It has been most explicitly introduced to the Marvel Cinematic Universe (MCU) through *Loki* and fully visualised in *Doctor Strange in the Multiverse of Madness* (2022). But even before that, it was present in fiction, and while it is disputed which story could be considered as the first to include branching time, Wasserman (110) refers to "The Branches of Time" (1935) by David R. Daniel

and Jorge Luis Borges' 1941 short story "The Garden of Forking Paths" as contenders for this role.

A further position within the branching time theory, however, argues that branches can only be created through time travel as this causes the universe to split into two worlds where one moves on as before and the other one is altered through the time traveller arriving there (Wasserman 78). Regardless of the specifications of whether and how branches can be created, time travel is of importance to all perspectives, and it is agreed that time travel necessarily results in a branching of the timeline every time (Ginn and Leitch xiv). In turn, time travellers can only ever arrive at another timeline but never their own past or future, which is illustrated in the 1976 publication of the *Fantastic Four Annual #11* written by Roy Thomas. In this issue, a piece of vibranium, an almost indestructible metal, is accidentally sent back to the second world war with the help of Dr. Doom's time machine and arrives at a second branch (Gavaler and Goldberg 325). On this second branch, the vibranium falls into the hands of German soldiers and changes the course of the war dramatically, leading to a victory of the Axis power so influential that it even threatens to affect the other timelines (Gavaler and Goldberg 326). In order to stabilise the timelines, the eponymous characters travel back in time to 1942 but not to their own past but the alternative past that has branched through the travel (Gavaler and Goldberg 326). While the fantastic four succeed in their mission, they are incapable of undoing the event on the second timeline itself since, according to the branching theory of time, their arrival on the second timeline causes the branching of a third timeline in which the rise of the axis power is stopped (Gavaler and Goldberg 326-327). The past of one timeline is then immutable as time travel results in a branch in which the past of that particular new branch has been re-written (Gavaler and Goldberg 327). In the end, there is thus the first timeline which the Four depart from, the second timeline the Axis power wins on, and the third timeline which is stabilised by the Fantastic Four. Despite the success of the heroes, a branch where German soldiers wreak havoc continues to exist.

Within Marvel Comics and now also the Marvel Cinematic Universe, the concept of branching time appears regularly when time travel is involved but the exact rules for time travel in a multiverse differ depending on the contributors. This is due to the underlying behaviour of time that is assumed because branching time only describes the visualisation of time but does not explain what aspects of it are considered 'real' or whether the branches always exist or only come into existence (Gavaler and Goldberg 329). A linear timeline, individual branches in the

multiverse or the entire multiverse can thus be explained by the theories of eternalism, presentism, and the growing block theory as well. But the nature of time on the timelines is not essential because a time traveller can never reach the past or future of their timeline and attempt to alter the facts there regardless. It could be that only the present branch exists and ceases to exist if characters travel to another branch, which would equate to presentism, or it could be the case that the branches all continue to exist parallelly like in eternalism (Gavaler and Goldberg 329). It is, however, within the comic book series *What If* (since 1977) and the animated TV series adaption with the same title (since 2021) that the multiverse becomes most apparent. The comics and series show alternatives to the linear timeline of Marvel's superheroes that have been created through divergences, however the branches are not necessarily caused by time travel but by simple, possibly unconscious decisions at points of divergence that changed the course of the original timeline's path (Gavaler and Goldberg 328).

As a narrative device, branching time has the advantage that it manages to solve, or at least sidestep, some well-known paradoxes of time travel. For instance, the grandfather paradox by Lewis (363-364) claims that a man going back in time *must* fail in killing his grandfather if his own mother or father has not been 'produced' yet. Had he succeeded in killing his grandfather before that, then the man would have never been born, which, in turn, means that he could not have gone back in time and therefore the grandfather had lived. It would be paradoxical if the grandfather simultaneously dies and lives but if we consider this matter with branching time in mind, the grandfather dying would be part of an alternative timeline and would thus not affect the man directly. The paradox itself is solved but the man's problem remains because the grandfather he hates did not die in the past since the man has not changed the past in his own but an alternative timeline. In other words, time travel in branching time is always successful because facts can be changed and no paradoxes apply but always fail if the aim was to alter the past or future on one's own timeline (Cristofari 30). Wasserman (90) agrees that this as well as other typical paradoxes of time travel do not apply to branching time but emphasises that this is the case because travelling to another branch is not actually time travel. Rather, a well-known criticism of time travel in a branching universe is that the term 'time travel' is misleading since anyone departing from the present simply arrives at another space even if the point of arrival may be analogous to one's past or future (Gavaler and Goldberg 331). Power (*introduction*, 284) therefore refers to this form of travel as pseudo-time travel because a time traveller is unable to interact with moments along their own timeline. For the aim of this thesis, however, I will consider travel between timelines to be time travel if the traveller attempts to travel to the

past or future and arrives at a point in time that is not parallel to the present they departed from. Despite the objections, I argue that it is the attempt to, for instance, alter the past that creates a new branch which might or might not be caused by mere space travel.

## 2.2 Time in the Marvel Universe

This discussion of the four concepts of time is not nearly exhaustive and does not claim to be. Yet for the purpose of this thesis, I will omit theoretical criticisms and historical background and instead focus on how time functions within the Marvel Universe. The Marvel Universe, which contains all official publications of Marvel, can be seen as one largely coherent diegetic world of interacting characters that arguably forms “the longest continuous, self-contained work of fiction ever created” (Wolk 1). Across Marvel Comics, the Marvel Cinematic Universe, novels and videogames, the audience can enjoy continuous character development along the timeline of events in the MU. Particularly since the origin of Marvel Studio productions with *Iron Man* (2008) millions of fans have followed the rises and falls of the superheroes. The connectedness between publications that Marvel is nowadays known for has not always been this coherent. The starting point of the ‘Marvel Age’ lies in the 1961 publication of *Fantastic Four #1* written by Stan Lee and pencilled by Jack Kirby (Wolk 9). At this time, the comics were not meant to be read as one coherent story because the books were published and then no longer available, which means that even stories drawing on earlier events were created in a manner that allowed them to be a meaningful first comic book for a new reader (Wolk 16). Only through digital publications in the early 2000s has it become standardised to reprint comic books and make them available for a wider mass audience (Wolk 35).

But even with all material technically available now, the Marvel Universe does not require to be explored in its entirety. However, superfan and author Douglas Wolk has read the entire Marvel Comics canon of more than 500,000 pages to date. He concludes that one does not have to and *should not* read it all because the comics are meant to be experienced by picking plotlines or characters one is really interested in (Wolk 3). One way to do so is by reading or watching according to the chronology of publications but, depending on the interest, one could also focus on specific themes, like the character Loki. However, the order then influences the audience because in watching the TV show *Loki* before watching the *Thor* movies and reading the Thor-centred comic books *Journey into Mystery*, the viewer experiences the character of Loki as

vastly different. Aside from the chronology of the reader and the publication, there is additionally a third possible chronology, namely of the events within the story as they are ordered along the timeline from the Fantastic Four's first adventure to now (Wolk 27). Despite Marvel continuously publishing up to sixty series simultaneously, all events are located within the timeline of the Marvel Age and affect each other or future events and are caused by earlier plotlines (Wolk 28). At times, contemporarily published events can even alter earlier stories through so-called retroactive continuity, for example through showing a different perspective on a past event through a flashback (Wolk 29). It is this timeline that consistently flows throughout the Marvel Universe that I will concern myself with here and the nature of which I will analyse based on the example of *Loki*.

The MU is a cooperation between different writers, artists, producers, publishers, and more, which also affects the uniformity of this timeline (Wolk 5). This is reflected in the various concepts of time applied throughout the Marvel Universe. Of course, this makes it impossible to simply state that the MU is, for instance, a presentist multiverse. This difficulty is amplified by the fact that the nature of time is not expressed explicitly but can only ever really be analysed through the implications of time travel (Gavaler and Goldberg 322). Despite this evident heterogeneity, all events can be located on the timeline and are connected in their causes in the past and their effects on the future. Starting with Marvel Comics, the MU has created a so-called semiosphere, "a universe of significance that works by general rules of semiotic functioning" (Serra 646). Serra (646) draws on Lotman to compare the diegetic worlds of Marvel Comics and DC Comics, concluding that, while different in their approach, they both manage to create coherent universes that can be made sense of. Especially Marvel Comics show signs of serial continuity where events are connected, characters develop, and time passes the way it does in the reader's world (Serra 647). Part of why this continuity has been created is that it makes every event depicted in the comics more significant because the reader anticipates what consequences it might have in the future (Serra 648). Now fans tend to analyse new releases, be it comics or feature films, closely to predict future implications, such as the appearance of a character. Marvel has maximised this anticipation of the future in the post-credit scenes which are found after the credits of feature films but sometimes even episodes of a TV series, including *Loki*. Often, these scenes depict a connection between characters that was hidden before, imply future consequences of the actions within the publication or reveal a character that will play an essential role in the future. Through the employment of such a continuity, the universe within the Marvel Comics has thus become more consistent as the

continuous narrative provides the reader with a rapidly growing backstory of the universe (Serra 647).

### 2.2.1 Time in the Marvel Comics

To emphasise the relevance of time and time travel in the Marvel Comics, I will first turn to Serra's comparison of the temporalities of Marvel and DC, the so-called 'Big Two' publishing houses. In comparison to Marvel, DC has employed an iterative seriality where the issues published are conclusive on their own and there is little continuity between the issues of even the same series so that they could be read in any order without losing meaning (Serra 647). In the Marvel Comics, time truly passes in the diegetic universe, which is evident in the character development and open chains of causes and effects (Serra 647). Daniele Barbieri has regarded this continuity as historical temporality where histories play out and there is a certain linearity of events that even allows for an ending of the stories (Serra 647). The ending may be caused by earlier events. Marvel has concluded several storylines with issues subtitled 'The End' that sometimes are part of the official historicity of the universe (Serra 651). This aids the MU in appearing closer to the reader's own world, but the so-called 'Marvel Time' still flows differently to our time. In the early beginnings both times were identical but from 1968 onwards this changed in order to maintain the youthful strength of the superheroes for longer ("Comic-Book Time"). Wolk calls this phenomenon the "sliding timeline" (29), where time starts with the first issue of the *Fantastic Four* which is set fourteen years before 'now', with all events taking place in the time in between. When this concept makes insufficient sense, the story is retroactively altered or explained and so the extraordinarily long lifespan of Nick Fury from the second world war to now, for example, is 'solved' with a mysterious serum (Wolk 30). Similarly, political hints in the comics had to be adapted to be counted as general topical references rather than pointing at, say, President Bush to make sense of "the way Marvel has squished sixty years of publishing time into about fourteen years within the story" (Wolk 231).

Nonetheless, observing temporality within Marvel and DC is not as simple as claiming that DC opts for auto-conclusive stories and unclear succession while Marvel's Stan Lee and Jack Kirby developed a perceptible continuity from the early 1960s on. Within the last thirty years, DC has adapted temporal structures found in the early Marvel Universe and vice versa. This has shaped the understanding and expression of time within the respective publishing houses, but they are

nonetheless still heavily influenced by their own history of temporality (Serra 651). However, DC and Marvel Comics are collaborative products where different views collide, which is why Serra (648) points out and why I want to emphasise that these overviews are models of temporality and are in no way followed exactly by all creators involved. This also leads to several temporal paradoxes and time anomalies that are evident throughout the DC and Marvel Universe, which simply lie outside the scope of this thesis (Serra 647). There is, nevertheless, an exhaustive fan-made list of anomalies with reference to the comic books, related events, and cause-effect-relationships with other stories under the section “Comic Book Time / Marvel Universe” on the *tv tropes*-website.

Now I will turn to the nature of time that is assumed within the Marvel Comics and start this rather complex matter by turning to the beginning of the Marvel superheroes. In earlier renditions of the Marvel comics, i.e., in the time of Jack Kirby and Stan Lee, time was thought of as presentist or eternalist and linear but since the late 1970s this view on time has shifted towards a “branching multiverse of similar, independent, yet mutually accessible universes” (Gavaler and Goldberg 332), mainly through writers Jack Byrne and Roy Thomas (Gavaler and Goldberg 332). This shift has come so far that earlier time travel stories were even revisited and rectified in later stories to fit their narratives into an eternalist theory of branching time as represented by Byrne and Thomas (Gavaler and Goldberg 329). To make this plausible, the characters are treated like the readers, who find out about the construction of time little by little as well. For instance, Byrne had Dr. Reed Richards of the Fantastic Four find new data on their earlier time travel adventure in the hundredth issue of *Marvel Two-in-One* to have him reconsider his earlier view of linear eternalism (Gavaler and Goldberg 329). Instead of travelling into the past of their own timeline, they have now been propelled into an alternative, almost identical timeline’s past (Gavaler and Goldberg 330). Today it is this concept of branching time which prevails within the MU and is dominantly understood from an eternalist point of view, implying that all branches or universes always exist (Gavaler and Goldberg 329). In other words, the branches are not created through a character travelling there but are simply found (Gavaler and Goldberg 329). The timeline in which the Axis power won through the assistance of vibranium in the *Fantastic Four Annual #11* has therefore already existed but because of the interaction of the branching timelines, the vibranium has landed there when travelling through time instead of the past of its own universe.

The eternalist branching multiverse which the MU now continuously builds on contains several worlds travelled to in the Marvel Comics and MCU, which is why they have been designated their own number. As a part of the retroactive adaptation of earlier stories, universes that were depicted before the early 1980s were named and numbered as well (Gavaler and Goldberg 335). Among the more than 1,400 designated universes to date, the most notable one is Earth-616, which features the stories of Kirby and Lee and is seen as the primary universe most comic stories take place in (Gavaler and Goldberg 334). The random classification of the main universe as 616 hereby suggests that there is nothing extraordinary about this universe, especially contrasted with the denominations of Earth-One and Earth-Two in DC comics (Wolk 37). Our world – meaning mine, yours and the reader’s world – is Earth-1218 and the adapted stories of the MCU’s big screen and consequently the origins of the show *Loki* play out on Earth-199999 (Wolk 48). The events of the show seem to occur on that timeline in general but because the events mainly take place in the Time Variance Authority, an organisation that claims to be set outside of time, or along different branches of timelines, the exact universe is difficult to pinpoint.

Within the historical temporality of the Marvel Universe, time travel plays an essential role and is repeatedly used as a narrative device by various contributors. The rules of time travel seem to vary with every author or contributor, but in *Marvel Age #117* (1992) writer and editor-in-chief at that time Mark Gruenwald formulated ten strict rules that time travel within the Marvel Universe had to adhere to (“Rules of Time-Travel”). The second rule clarifies that every act of time travel leads to a branch in the timeline and that the time traveller only ever arrives at the branch not their own timeline. Any form of time travel is thus technically dimensional travel that is so similar to time travel that any time traveller will most likely be unaware they travelled to another timeline which was identical up to the point of travel. Moreover, a traveller cannot travel to a timeline they have been to before but always arrives at a new branch created through the time travel. In other words, they cannot return to their original timeline but only one so similar it is almost identical except for the effects of the time travel. The seventh rule states that the altering of the past has consequences on the future but depending on the means of time travel the time traveller could either return to a timeline not affected or affected by the changes. It seems that in the Marvel Universe the past can be changed, which would imply a presentist nature of time where the past is not immutably set in stone. However, rule nine reads that altering the past cannot affect the present because “the past is a continuous series of events that

always happened as they happened”, implying eternalism or the growing block theory (“Rules of Time-Travel”).

For my purposes, the exploration of time and time travel can be traced back to 1962, more precisely to the fifth issue of *Fantastic Four*, developed by Stan Lee and Jack Kirby (Gavaler and Goldberg 322). In this comic book, the villainous character Dr. Doom successfully creates a time machine that sets off a trope of time travel throughout the continuity of the *Fantastic Four* and Marvel in general, leading up to the present TV series *Loki* and a bureau investigating time travel activity. As shown above, this first adventure in time has the Fantastic Four discover that Ben Grimm is eternally fixed in time as the one who becomes Blackbeard, clearly implying an eternalist linear timeline. As this worldview no longer fits into the bigger picture of the multiverse, Gavaler and Goldberg (330) revisit the Fantastic Four’s journey into the times of Blackbeard and argue that the new logic of eternalist branching time requires that Ben Grimm travelled to another universe to become Blackbeard while another universe’s Ben Grimm must have travelled to their past to become Blackbeard there. All time travels and actions exist eternally because all facts within time and within all timelines are fixed in eternalism. Therefore, nothing can ever be changed by time travellers since they never actually travel to their own timeline’s past or future (Gavaler and Goldberg 330). This retroactive adaptation might allow the early time travel stories to become a coherent part of the multiverse, but the nature of time is even more difficult to determine or rectify in some comic books, such as *Iron Man #149*, where time is merely described as uncertain, which leaves little implications for or against branching time, eternalism, presentism or time as a growing block (Gavaler and Goldberg 332). It should still be mentioned that Iron Man warns his companions not to change anything in the past as it could alter the path of history as they know it, which hints at presentism but does not necessarily equate to it because, in the end, we don’t know if changing the past would have changed their own present and future or was always meant to happen anyway (Gavaler and Goldberg 334).

Consistent with Gavaler and Goldberg’s analysis of time travel in the Marvel comics, Dr. Doom’s time machine is capable of travel between universes and, based on which comic is taken into consideration, can either create a new universe with each travel or allows travel to already existing universes (Gavaler and Goldberg 334). Given the dominant view of eternalist branches, it seems more likely that the travellers simply travel to a universe that has existed before and will continue to exist after the visit, wherefore characters might even be capable of

visiting the same universe on various visits (Gavaler and Goldberg 334). On the other hand, this would contradict the rules for time travel set by Gruenwald and the contributions of writers and pencillers like Lee and Kirby. Similarly, linear presentism in Earth-616 and other stories lead to a conclusion that branching time in Marvel Comics is not exclusively eternalist and that within the Marvel Universe both time travel and universe travel seem to be possible simultaneously (Gavaler and Goldberg 334). The genre of the comic book and its collaboration of different voices within one hopefully coherent narrative universe makes the question of which philosophy of time the Marvel Universe is based on almost impossible to answer. Gavaler and Goldberg make this evident when they quickly summarise different writers' and artists' views on the matter throughout the early years of Marvel comics:

“While Lee and Kirby and later Mantlo are eternalists, Thomas introduces presentism in 1968, but actually maintains eternalism, until adopting the growing block theory with Gerber and later DeMatteis. Thomas also introduces branching time, which Byrne of 1981 combines with either the growing block theory or eternalism. While Thomas believes that time branches at points of divergence, including those points created by time travellers, Byrne of 1983 believes that all branches exist eternally. Finally, Micheline, Moore and Bendis reject both branching time and eternalism in favour of a multiverse of presentism.” (335)

The complexity of time within the Marvel Universe is even more extreme than this summary shows because the multiverse including Earth-616 was destroyed in the Marvel Comics series *Secret Wars* in 2015, which left the comic universe with a single timeline, a new universe that still shared most of its features with the former primary universe (Gavaler and Goldberg 335). Between the first and second issue of *Secret Wars*, eight years have passed and issue two focuses on survivors of the destruction of the multiverse, continuing their story (“Time Skip”). The phase since 2015 is known as *All-New, All-Different Marvel* and seems to favour a single linear timeline along which the events of the recent comics take place (Gavaler and Goldberg 335). This is not to say that a multiverse of eternalist branches is not possible anymore in this reboot but that, as of now, the comics have been reduced to a singular universe, which allows only for time travel but not for universe travel. At this point I will have to admit that it seems impossible to fully investigate the history of time and time travel in the Marvel Comics as a whole, especially due to the inherent factor of collaboration within the medium that allows for different input. While the comic books have created a successful, coherent semiosphere in which the events can be linked together and the passage of time in the comics can clearly be experienced by the reader, there is still no short answer available to the question of how time

functions in the Marvel Comics. For the sake of the analysis of *Loki*, I will disregard that the eternalist multiverse has been – possibly only temporarily – destroyed in the comics because the series I will analyse is set within the multiverse. Moreover, the multiverse of alternative timelines has been set up since the 1980s and continuously added to, with contributors even adapting earlier stories to follow the logic of an eternalist branching universe. To simply ignore these years of works to assume that only the current linear timeline exists would be simplifying the Marvel Universe as a whole.

### 2.2.2 Time in the Marvel Cinematic Universe

Compared to the 500,000 pages of comic books published over 60 years, the MCU only contains 32 feature films and 20 TV series<sup>3</sup> to date. While the Marvel Studios' movies – and series, I would add – incorporate characters, events or other elements of Marvel comic books, there is no direct translation of stories from the medium of comic book to the big or small screen or vice versa (Wolk 36). The MCU is divided into phases of publications and into larger so-called sagas to clarify which releases deal with similar, overarching threats, with the current second saga being termed 'The Multiverse Saga'. It is this saga that I will draw on to explore time in the MCU, especially because time and time travel has not been explicitly attended to prior to *Loki* except for in *Doctor Strange (2016)* and *Avengers: Endgame (2019)*.

In the feature films of the MCU, time first becomes a central element in *Doctor Strange (2016)*, where the title character earns possession of the 'Time Stone', one of the six Infinity Stones that make up the powers, or singularities, of the universe. The time stone provides its user with immense control over time, making them capable of reversing time or altering individual objects or events without affecting the greater continuity of the timeline ("Time Stone"). When Doctor Strange experiments with sending a bitten apple backwards and forward in time, the apple shifts into an eaten apple and back despite him not having eaten the fruit in the meantime. This implies that "the Stone could send objects forward to a potential future state that does not necessarily have to occur in the current timeline" ("Time Stone"). However, the Doctor's experiments are short-lived when he is interrupted by his mentor screaming: "Tampering with the continuum probabilities is forbidden" (*Doctor Strange* 51:24-51:30). It is then explained

---

<sup>3</sup> For the purpose of this thesis, I will disregard the 12 TV series not produced by Marvel Studios but by Marvel television prior to connecting the TV shows and the movies consistently.

that such a tampering would create branches in time and lead to instabilities between the dimensions like time loops (*Doctor Strange* 51:36-51:42). Later on, Strange causes such a time loop by reversing time and saving fellow magician – or Master of the Mystic Arts – Wong but manages to escape, returning the time stone to the Masters for now (*Doctor Strange*).

Only in *Avengers: Infinity War* (2018) does the time stone appear again and is utilised by Doctor Strange to look into possible futures, aiming to find one where the eponymous heroes defeat Thanos, the overarching villain of the Infinity Saga (“Time Stone”). The stone changes possession a few times throughout the Infinity Saga and is, for instance, used by Thanos to reverse the death of the character Vision, but I will not go into detail about the history and usage of the time stone here. One, the two examples of Doctor Strange seeing possible futures and the Master’s warning already hint at a branching universe in which the timelines can interact and in which the future is undetermined. The future being open to change is possible only in presentism or the growing block theory but not in eternalism. Second, the TV series *Loki* explores time and the multiverse most explicit in the Marvel Cinematic Universe and quickly disregards the importance of the Infinity Stones in its pilot episode “Glorious Purpose.” In the TVA, or Time Variance Authority, Loki encounters an office worker who possesses an entire drawer full of various Infinity Stones from various timelines. The TVA is an organisation within both Marvel Comics and the MCU and is tasked with monitoring the flow of time within the multiverse (Wolk 48). When asked about the Stones, the worker replies: “Oh, we actually get a lot of those. Yeah. Some of the guys use them as paperweights” (*Loki* E1 35:41-35:46). At this admission, Loki is understandably in shock. Not only has he himself chased after the Infinity Stones his entire life but these few seconds seem to discredit the entire MCU Infinity Saga, which centres around these powers. As I will analyse *Loki* and not the Infinity Saga in detail, I therefore have to assume that the Stones are powerful within a timeline but of little importance when the entire multiverse is concerned and take *Loki* but not *Doctor Strange* as the starting point for an investigation of time in the MCU.

Prior to *Loki*, time travel is properly depicted in *Avengers: Endgame* (2018) and a few aspects of this depiction are crucial for relating time travel in *Loki* to the Marvel Universe. In *Endgame*, the Avengers decide to go back in time to collect the Infinity Stones from the past, hoping to reverse the killing Thanos has subjected the world to. With the help of a fictional technology called Pym particles, Tony Stark and his companions build a time machine and separate to collect the Stones they had possessed along their own timeline. This adventure has been termed

the 'Time Heist' and leads back to 2012, 2013 and 2014, where the characters encounter their past selves on alternative timelines which were created through the travel in time ("Time Heist"). In 2012, Bruce Banner meets the Ancient One, who is Doctor Strange's future mentor in the Mystic Arts, attempting to retrieve the time stone while Captain America, Iron Man and Ant-Man travel there to collect the power stone. She explains that the Infinity Stones make up the flow of time in each universe and if you "remove one of the stones [...] that flow splits" (*Endgame* 01:23:03-01:23:06). Taking the Infinity Stones from the alternative past travelled to would thus drastically affect that branch because the heroes there would no longer have the Stones to protect their world but Banner promises to return the Stones to the moment they were taken. While the collection of the Stones is more complicated than this fragmented summary, it is successful in the film and shows that even before *Loki*, the MCU was conceived as a multiverse of branching realities. Time travel in *Endgame* and the use of the Time Stone in *Doctor Strange* clarify that there is a multiverse that *can* and *does* branch through time travel because the Avengers arrive in an alternative past, capable of significantly changing the flow of events there. In other words, the title heroes travel back in time, cause branches along their timeline and arrive at the alternative history – because if they had arrived at their timeline, they would have encountered their future selves already when they existed in the 2012, 2013 or 2014 present. It is therefore evident that the shape of time in the MCU is branching but the nature of the branches is challenging.

In *Loki*, Loki argues that it was the Avengers who caused chaos on the timeline through their time heist, but TVA judge Ravonna Renslayer quickly shuts this argument down by stating that "[w]hat they did was supposed to happen. You escaping was not" (*Loki* E1 16:24-16:29). Such a statement strongly implies an eternalist multiverse where certain journeys through time are determined and necessarily occur for time to flow coherently through chains of causes and effects. Nonetheless, *Endgame* leaves some questions unanswered. For example, time travel causes branching but since the Avengers could return the Infinity Stones to the exact timeline they were stolen from, this rule seems to be inconsistent. Of course, it could be that the Avengers only returned the Stones to a new branch almost identical to the past they visited but this, in turn, would contradict the promise to the Ancient One that the timelines will be in no danger because of their heist. Even if the Time Heist in *Endgame* is quickly approved by the TVA and plays no significant role in the show *Loki*, it is this adventure that the series under investigation originates from. Originally, the character Loki died in *Infinity War* (2018), but in the chaos of 2012, the past version of Loki successfully snags the Power Stone and disappears

into a portal, leaving Ant-Man to exasperatedly – and looking back with *Loki* in mind, ironically – ask: “That wasn’t supposed to happen, was it?” (*Endgame* 01:21:44-01:21:47). Within the determined events of an eternalist multiverse, *Loki*’s survival was not meant to happen but nonetheless occurred. On the one hand, I could argue that the resurrection of a beloved character after his tragic death in *Infinity War* is a narrative device typical for the superhero genre where death barely remains permanent (Wolk 13). On the other hand, it leads to a fascinating starting point for analysing the essence of time in the Marvel Universe because while on the surface, time seems to be branching, there are exceptions and contradictions. Moreover, *Loki*’s survival begs the question if the multiverse is truly eternalist and fully determined or if the TVA simply aims to have it appear this way. I will answer these questions and explore the depiction of time and time travel in *Loki* in the analysis below.

### 2.3 Determinism and free will in time travel

Considering the nature of time that underlies a time travel narrative is necessary in order to understand the possible consequences of time travel as it gives insight into if, and if so how far, a fact in the past or future can be changed. This mutability of time is relevant for the ethical considerations of time travel as it determines the agency, and thus moral agency, of a time traveller. That is, it defines whether a time traveller can change the past or future for a given motive and based on the ability, it can be analysed if they *should* change it. In psychology, moral agency “refers to the ability of individuals to determine their behaviour when it affects others’ well-being; in other words, the perceived ability to avoid doing harm to other people” (Black 295). It is linked to the will of an individual and depends on whether that individual has free will.

In hard determinism, free will is inevitably contrasted by determinism.<sup>4</sup> The question whether the future is determined and thus unchangeable has been debated within philosophy from its beginning onwards and lately even within physics.<sup>5</sup> The connection between determinism and moral agency, or free will, lies within the accountability of the agent, i.e. in the question whether the individual has a real choice in taking their actions or if the actions are predetermined and

---

<sup>4</sup> Some perspectives within determinism, such as soft determinism, argue that free will and determinism are not mutually exclusive, but as they are juxtaposed in *Loki*, I will not concern myself with these perspectives here.

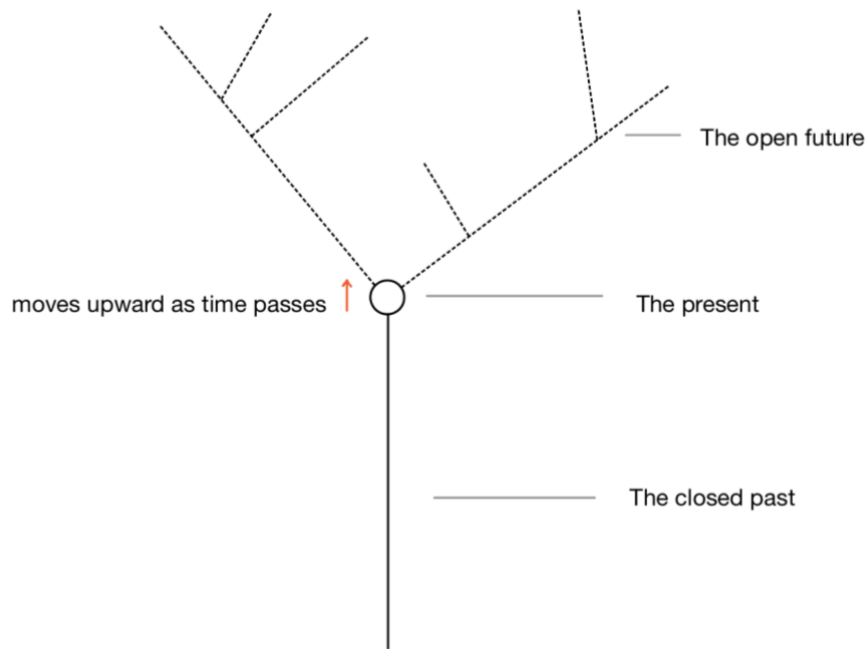
<sup>5</sup> Therefore, I recommend the short summary of theories of determinism and free will in Nahin (161-170) and the chapter by Huemer.

unchangeable. An individual with free will can be held accountable but to be considered to have free will, they need both self-control and alternate possibilities (Huemer 105). The individual must thus have different options – all of which can be realised – and the capability of controlling one’s actions so that the chosen option is chosen solely because the individual *can* and *does* choose it (Huemer 105). Turning to psychology, the prerequisites for moral agency are defined in other terms but have similar outcomes, as I would argue. Black (295) names rationality, knowledge of relevant moral paradigm and the application of the rules of the paradigm. Rationality here simply means what Huemer (105) calls self-control, referring to the ability to choose and be capable of understanding the consequences of right and wrong actions in context (Black 295). At this point it is nonetheless important to distinguish moral agency from free will because these two terms are not identical, even though they overlap in some areas. Free will merely describes the ability to freely choose without being constrained in the choice while agency corresponds to an action that is carried out intentionally in order to cause a specific effect (Black 296). Such an act depends on self-regulation or self-control. Possessing moral agency does not mean that someone will indeed act morally, simply that if the person chooses to act morally, they will be capable of carrying out this action (Black 307).

An unconstrained choice is incompatible with a future that is already determined as there is only one option that will necessarily come to be. One view of the future as determined can, for instance, be found in Catholicism, which believes there to be an omniscient God who knows exactly how the future will unfold (Huemer 106). Another view is based on physics and often referred to in philosophy, namely that the laws of nature such as gravity are deterministic (Huemer 106). Given Newton’s laws of motion, for instance, an object must move in a certain way that is determined and cannot behave differently (Huemer 106). The moral agency and free will of a character hence depend on the concept of time in a universe, especially if certain actions – in the past or future – are determined or open and mutable. If the narrative is based on eternalist views, for instance, the moments in time travelled to are eternally fixed and cannot be changed, which means the time traveller has no agency and therefore no moral responsibility for what happens in these moments. In Marvel Comics this concept has been utilised to explain why time-travelling superheroes cannot prevent suffering by travelling to the past. This attempts to shield their heroes from the moral responsibility that is often associated with time travel. In *Marvel Team-Up #44-45*, Spider-Man uses Dr. Doom’s time machine to defeat Dark Rider in Salem’s 1692, but he cannot save those who were wrongfully accused and hung as witches (Gavaler and Goldberg 323). To nonetheless maintain Spider-Man as the hero, the issue

concludes with him emphasising that he could not have changed their fate as it was already set in history, i.e., eternally fixed in the past (Gavaler and Goldberg 323). Time travel from an eternalist point of view though means that a time traveller is theoretically capable of changing events but as they were always meant to happen exactly this way, the changes simply make no difference. Within a framework of branching time, Spider-Man would have been able to save the hung women, but he would have only saved the women in an alternative past and never his own (Gavaler and Goldberg 330).

In contrast, the concept of presentism accredits the time traveller great agency and thus moral responsibility since they can change all facts they encounter on their travels because they make any point in time their own present (Gavaler and Goldberg 323). The traveller can act freely as their actions are not eternally fixed but up to their own volition, however the decisions taken can have repercussions on the timeline which then lie in the traveller's responsibility. Causing suffering or failing to prevent it is therefore directly linked to the actions of the time traveller, who, as a result, can be held accountable for it. In a presentist or growing block world, any action follows the so-called Non-Determination Thesis as any future statement, such as there being a sea-battle tomorrow, is neither true nor false in the instant of the utterance (Ninan 6,11). Looking at the growing block theory, the past is fixed and cannot be changed but the future is open and any action taking place at the present can influence how the future turns out. The future is, in other words, open and undetermined. There is no clear path that the timeline is inevitably headed to but it contains multiple possible outcomes which depend on present decisions. Hofer (70-71) visualises an indeterministic timeline in his book chapter "Time and chance propensities." This timeline is divided into past, present and future, and thus attributed to presentism rather than eternalism, where the points on the timeline would be denoted either as 'earlier than' or 'later than'. While Hofer (71) does not place this timeline into a specific concept, I argue that the following graph 5 perfectly describes the growing block theory. The visualisation shows the past as closed and the future as open, which I associate with the growing block theory but not presentism where the past and future are deemed equally unreal and symmetrical. This open future is hereby defined as a future that is not determined by past facts and the laws of nature and, as such, there are various possible futures rather than one (Hofer 71-72).



Graph 5: Indeterministic ‘open future’ variant of a timeline (adapted from Hoefer 71)

One further aspect to keep in mind when discussing a character’s agency and moral responsibility is whether this character is aware of the repercussions of their actions. If they, for instance, travel back in time in an eternalist world but are not aware that their actions have no possibility of changing a given event for the better or for worse, then they might be extremely careful and worry about possible risks of time travel without knowing their actions are already determined. Nonetheless, it is inherent to time travel that there are risks when one travels to the past and this focus on possible repercussions has been the centre of most time travel stories since Bradbury’s short story “A Sound of Thunder” from 1952. In this story, the main character travels to the past on a safari that allows him to kill a dinosaur that was going to die shortly anyway (Nahin 50). Along with the rest of the safari attendees, he is warned not to stray from the path and not to alter anything, but he accidentally kills a butterfly, which has drastic repercussions over the millions of years until his present (Nahin 50-51). His present is significantly transformed because a time traveller *could* change the past and *did* change the present as a consequence. The example of this so-called butterfly effect is nowadays often referred to when talking about the risks of time travel (see for example Nahin) but, then again, taking an action in the past might also have no consequences because time is eternalist or because the action simply takes place in a parallel branch. Furthermore, the actions of a character in fiction should also be viewed under the aspect of characters aiming to fix their mistake. Some time travel stories indeed allow for a second chance to go back in time to change

the past again to create a better outcome than through the first time travel (Nahin 53). However, it could also be the case that the time traveller does not even remember travelling in time, which leaves them unable to fix their actions. This trope of time travel can, for example, be found in short stories such as Sever Gansovsky's 'Vincent van Gogh' or John Gribbin's 'Don't Look Back' (Nahin 57).

In a multiverse of several timelines, actions are either determined or indetermined depending on the nature of time of the individual timelines and of the multiverse as a whole. If we look at our world, Hugh Everett, who proposed the physics of the many-universes argument, claimed that branching time is necessarily determined because everything that can happen, does indeed happen in one of the universes (Deutsch and Lockwood 379). Physically, every neutron decays at a specific time in each universe and, based on observations, it can be predicted in how many universes an event statistically occurs (Deutsch and Lockwood 379). For the characters in the fictional world of *Loki*, it does nonetheless make a difference if they have free will and choose to carry out an action, even if there are two timelines as a result, one in which the action is carried out and one in which it is not. In a way, the multiverse therefore provides the characters of the Marvel Universe with a certain agency to choose and to alter the past or future. But, in the case of eternalism or the past according to the growing block theory, this choice might just be an illusion because the events are already immutably fixed. I therefore argue that the actions of a given character, such as Loki or a TVA agent, should be considered not only based on the nature of time but on their knowledge of it or their attempts to do the 'right thing' although they might never be successful in it.

In this chapter, I have introduced the theories of eternalism, presentism, time as a growing block, and branching time and provided examples of how these concepts were identified in the Marvel Universe. Especially the analysis by Chris Gavaler and Nathaniel Goldberg has shown that it is difficult to determine the underlying nature of time in a Marvel publication because it can only be inferred by the consequences of time travel and is influenced by the plethora of contributors. Nonetheless, I find the analysis extremely valuable as it suggests the four theories of time as a starting point for my own analysis and contains several examples of what elements of narrative are useful to consider. The depictions and explanations of time travel in the Marvel Universe, which I have summarised in this chapter, provide a framework of time theories that I can now draw from in my own analysis. Consequently, I will analyse the TV series *Loki* with the four theories in mind and relate the implications and rules of time travel in the show to the

time concepts in the MU addressed here. Given the internal differences in the MU, time in *Loki* does not have to fit one of the concepts perfectly but the framework allows me to compare and contrast *Loki's* depiction of time and time travel with prior representation in the Marvel Universe to interpret why *Loki* might differ from other MU products.

### 3. Analysis

The TV show *Loki*, which is the focus of this thesis, consists of six episodes that chronologically follow the events of the MCU blockbuster *Avengers: Endgame* (2019). While the character Loki had originally died in its predecessor *Avengers: Infinity War* (2018), his past version managed to escape when the Avengers travelled back in time from 2019 to 2012. This escape is only shortly depicted in *Avengers: Endgame* but marks the beginning of *Loki*, which starts with the footage from the blockbuster to help the audience orientate themselves. It reminds the audience of what has happened in the MCU so far and, in doing so, emphasises the connectedness of events within the MCU. Hence, the first minute of *Loki* ties into the greater semiotic framework of the MCU and reflects the historical temporality by Serra introduced in chapter 2.2. After all, not even a pilot episode of a new TV show is independent of other Marvel franchises but rather a plotline added to the universe of stories.

In the beginning of *Loki*, the title character is therefore alive and on the run from the Avengers and authorities. However, the time travel by the Avengers is not without consequences and by the fifth minute of the pilot episode “Glorious Purpose”, Loki is already taken into custody by the Time Variance Authority (TVA). The TVA is a bureaucratic organisation which claims to be situated outside of time to monitor the ‘proper flow of time’. The proper flow of time refers to the Sacred Timeline, a single timeline within the multiverse that is deemed superior by the organisation. Any branching of this singular timeline is immediately eradicated by the TVA agents, the so-called minutemen. While the TVA appeared in the Marvel Comics for the first time in 1986 in *Thor #371*, the organisation had not been introduced into the MCU before. Consequently, both Loki and the audience are unfamiliar with its purposes and methods. To inform the title character quickly and precisely, he is tasked to watch an introduction video to the TVA, through which the audience is simultaneously clued in. In this first part of the analysis, I will focus on this introduction video to explore how different genres, camera angles and sound effects are used to explain the concept of time in *Loki*. Based on the basic distinction of visual

media elements made by Clark, Baker, and Lewis (18), I will incorporate camerawork, editing, sound, special effects, and mise-en-scène into this analysis. From there on, I will analyse the further depiction of time in the six episodes. In this second part, I will discuss the progression of time travel, the behaviour of time, and determinism and free will, with a focus on instances where these concepts deviate from the introduction video.

### 3.1 Multimodal analysis of Miss Minutes' introduction to the TVA

The scene under analysis is taken from the pilot episode “Glorious Purpose”, in which it starts at 08:31 minutes and lasts until 11:53 minutes. While the introductory video is only depicted from 09:24 to 11:22 minutes, I find it essential to analyse the scene in its entirety to provide the necessary contextualisation that shapes how the audience perceives the video. In the scene, Loki finally enters the waiting room of the TVA to await further instruction after having gone through several bureaucratic processes, such as signing a document that contains every word he has ever spoken.

The scene itself starts with the opening of the elevator doors, revealing a brightly lit and scarcely furnished room in a wide shot from Loki's point of view (POV). Generally, a POV shot is implemented to reveal an object or a character that the protagonist is looking at, often followed or preceded by the protagonist's reaction to it (Clark, Baker, and Lewis 20). Here, it allows the audience to experience the opening of the doors and reveal of the waiting room through Loki himself. Since the camera remains fixed and only zooms in a little as if Loki stepped closer to the elevator door, the audience takes in the new setting simultaneous with the character. This first shot (08:31-08:35) functions as an establishing shot, which is typically utilised to establish the relationship between a character and a location or the set (Clark, Baker, and Lewis 18), here including the audience in the relationship as well. From this first view of the room onwards, the TVA is set up as a hard-working, efficient and strict organisation which plays by the rules. The room is organised in near-perfect symmetry, containing a ticket vending machine and rows of guidance barrier. Additionally, there is a sign in the exact middle of the room telling newcomers to “take a tab” (08:34) from the ticket machine and an analogue clock that is hung on the back wall but appears to be directly above the sign. On either side of the sign there are at least ten empty, symmetrical rows of guidance barrier, each leading to a window with a worker and an

orange exit door. As Fraser puts it, the queue system “will fill anyone who has stood in line in a drab building like this with dread.”

The lighting design is particularly noteworthy as the room is brightly lit through at least ten diagonal rows of identical, circular hanging pendant lamps. The rows move outwards from the central row, adding to the desired symmetrical effect. Within the scene, the characters are rarely fully framed. Even in long shots parts of the lower body are cut off to include several rows of lamps on the ceiling. The constant backdrop of the artificial, symmetrical, and uniform lamps represents the efficient working ethos of the TVA, drawing on the bureaucratic aesthetic of the 1950s and 1960s. Because the ceiling itself cannot be seen and because of the overall dark set design, the room appears dark and artificial, generating an uncomfortable feeling in the viewer. From the start, there is a certain tension between the image the TVA aims to project and the image the viewer constructs. This tension is intended by the creators of the show and becomes most tangible in the choice of lighting, which is inspired by Modernist designers in general and the Breuer building in New York in particular (Stoilas). The subtle difference between the circular lamps in the Breuer building lobby and the TVA waiting room, which adds to the eery feeling, lies in the size difference of the light bulbs (Stoilas). The show’s production designer Kasra Farahani explains that in *Loki* “the size of the bulbs is much smaller, they were manipulated to create eyeballs” to form “a matrix of eyeballs peering down, like the always-watching Time-Keepers” (Stoilas). In addition to the low ceiling, Loki – and by extension, the viewer – is meant to feel claustrophobic and constantly watched (Stoilas).

Generally, the set design draws on a yellow, brown, and black colour scheme with orange details that draw the viewer’s attention. The choices in colour, paired with the strict but analogue queue system makes the TVA appear outdated, especially because the scene represents “the ‘50s and ‘60s distilled into a popular orange and grey palette from that era” (Fraser). Fraser consequently praises how Farahani “has created an environment that matches the plastic, wood panel, patterned, and curved shapes that dominated.” The set thus fits into the broader design concept and aesthetic of the programme to help visualise its theme consistently as is conventional for visual media (Clark, Baker, and Lewis 24). In *Loki*, the reference to the 1950s and 1960s might be due to two reasons, both meant to raise distrust in the audience. First, the visuals “enhance an off-kilter vibe” (Fraser) and keep the viewer on edge about the organisation’s true intentions as things might not be as positive as the TVA would like them to appear. Second, this era is conventionally associated with non-transparent government action

during the Atomic Age and constant battles over power and control (Fraser). Placing the TVA into this context then leads the viewer to reflect on the organisation and its video introduction more critically. In other words, it possibly leads the audience to consider the scene in terms of propaganda rather than as a serious Public Service Announcement (PSA). The soundtrack in the establishing shot furthermore adds to the cautious feeling, which contradicts the benevolent image the TVA aims to construct. Aside from the diegetic sounds of the door opening (08:32) or the ticket machine (08:57), the scene includes a continuous sound background. In the establishing shot, the incidental music is dominant and foreboding, which heightens the audience's suspense while the waiting room is slowly revealed through the opening elevator doors and in the subsequent wide shot.

This impression is reinforced in the second shot (08:35-08:49), in which the camera shows Loki in front of the now closed elevator doors in a wide shot from the back of the room. Even in this frame, the seemingly endless rows of lamps on the ceiling are dominant, casting the room in an artificial light that adds to the monochrome yellowish and brownish *mise-en-scène*. *Mise-en-scène* hereby refers to the totality of all “which is placed, or put, in the scene or frame” (Clark, Baker, and Lewis 24). Similarly, the room appears nearly symmetrical from this camera angle as well. Only the poster on each side of the elevator differs and there are two different individuals visible, a minuteman and another variant, or time criminal. Slowly, the camera zooms in to a long shot of Loki and the two figures, who are easily identifiable by their costumes. The minuteman, an executive guard of the TVA, is wearing the conventional uniform. It consists of a brown and black outfit with black shoulder and chest armour. The Tempad, the electronic device necessary for time travel, is strapped into the forearm armour. Additionally, the minuteman wears a black ski mask that leaves the face only visible from the lips to the forehead as well as a black hard helmet above it. The costume is completed by an orange TVA badge on the left upper arm and a pruning baton, capable of erasing individuals from the timeline with a touch of it. The minuteman therefore fits into the general aesthetic of the location so that he seems a natural part of it, almost as if he were another prop to promote the unity and identity of the TVA, with the term ‘prop’ describing the properties in the set design (Clark, Baker, and Lewis 24). This is a typical deliberate choice in visual media to represent the persona of a character through their costume but simultaneously to be consistent with the overall design concept of the programme (Clark, Baker, and Lewis 24). In contrast, Loki and the second variant are identified as the ‘other’ with their grey prison uniforms that stand out despite the orange details on it. They wear electronic necklaces, which control their

movements through controlling their subjective time. Comparing the costumes of the minuteman with the variants, it is evident who holds the power in this scene. Now in his prison suit, Loki does no longer visually appear like the powerful trickster God he was portrayed as in the MU so far. Instead of his glamorous green and gold robes that signify Loki as a God, he is now a part of the “mix of muted office attire and tactical garments” (Fraser). The wide shot, a camera frame often used to emphasise isolation of a character (Clark, Baker, and Lewis 18), places Loki as a small, insignificant figure in the large room, where hundreds of variants could queue at once. The first shots of the scene thus establish the Time Variance Authority not only as a physical location but moreover characterise the organisation through the *mise-en-scène*.

The minuteman urges the variant and Loki to take a ticket and while both comment on it being unnecessary, as there are “only two of us in here” (08:49), Loki still takes one. As he walks through the turnstile and along the barrier in the continuous shot from 08:53 to 09:24 minutes, the camera follows his movements slowly, only moving when he is about to leave the frame. Likewise, the soundtrack is now muted in comparison to the initial volume, limited to the sound of Loki’s footsteps that get louder as he moves towards the camera and a continuous incidental music. The latter is used in audio-visual media “to punctuate a specific event or action, or to provide a sound background” (Clark, Baker, and Lewis 22). In this context, the repetitive tune is subtle and confined to the background as is typical for elevator music or waiting rooms. On the one hand, this frame adds to the slow pace of the scene, which contains bureaucracy rather than the action-packed stunts expected in the genre. This emphasises that even Loki, a literal God, must adhere to the rules of the organisation. Like the second variant, he walks down the empty roads of the guidance barrier even though there is no queue. On the other hand, the shot emphasised the eery feeling discussed above through the framing of the camera. The low camera angle contains Loki from his knees upwards and includes several rows of lamps. Both the ‘eyeballs’ of the lamps and the camera seem to follow the character similar to a hunter following its prey. Loki, therefore, becomes the caged but wild animal caught by the TVA but is expected to pounce at any moment while they wait to take him down and, in the context of the TVA, prune him.

Frustrated with his capture, Loki exclaims: “This is a mistake! I shouldn’t even be here!” (09:14-09:16). In this exact moment, a distinct female voice with a thick southern accent chimes in from the off, responding to Loki’s outburst in perfect timing. “Hey there! You’re probably saying, ‘This is a mistake, I shouldn’t even be here’” (09:17-09:22). The overly friendly voice,

which is revealed to be the TVA's mascot Miss Minutes, an animated orange clock with arms, legs, and eyelashes, implies two things for the greater coherence of the series. For one, it helps depict the TVA as omniscient and superior since the organisation can predict what will occur at any moment. As a second implication this establishes Loki's role in the series, namely as ordinary or even insignificant because he acts in accordance with the expected behaviour of a variant. This contradicts his previous portrayals as mischievous and powerful God, who is typically one step ahead of other characters. Here, in the TVA, Loki is simply another being that is captured by the minutemen but of no further importance. Simultaneously, the voice draws attention to the television it originated from, an antiquated Tube television hung above eye level on a brown and black striped wall (09:24-09:37). To fit into the symmetry of the room, the identical set-up of at least three televisions is revealed on the opposing wall as well (09:42). The tube TV is one of the most noteworthy props in this scene and represents the overall state of technology of the TVA. In general, the interior of the organisation seems outdated as if stuck in the 1950s and 1960s while the Tempads imply that modern and even futuristic technology is available. Fraser summarises the set design as "retro-futuristic tech that never caught on and design features that would now be considered a nostalgia-infused purchase." Therefore, it is a conscious decision that the TVA is strangely out of place, which emphasises the increasing discomfort in the audience.

On the TV, which is zoomed into in a mid-shot, an animated video shows Miss Minutes summersaulting into the middle of the screen through a universe backdrop. The frame is accompanied by a swooshing sound and the loud noise of a horn, which started subtly during the dialogue. The former sound audially expresses her animated movement in combination with it being visually represented through motion lines that follow the mascot's summersault. Here the viewer can experience a shift in the genre within the scene, shifting from the surrounding live action to the animation of the intradiegetic video. Following Clark, Baker, and Lewis, I will use the term animation to describe the process of "creating a moving image with a series of varying still images" that "can be used to design graphics and effects, which bring something, such as a cartoon figure or title, to life, mostly by CGI" (22). This definition requires a second one, namely of CGI as computer-generated images or as the computational design of "graphics and effects not achievable through conventional means" (Clark, Baker, and Lewis 22). The video, which I will analyse in detail below, summarises the history of the Sacred Timeline and visualises its behaviour, which could not be achieved without the use of special effects or animation. While portrayal of the timelines is possible even in live-action in the genre of science

fiction, this simplification makes the passage and behaviour of time more explicit and thus ideal for analysis in a way it has not been possible in the MCU before.

After a long-shot showing Loki's baffled reaction to Miss Minutes, the introduction video narrated by the mascot takes up the full-screen from 09:42 to 11:22 minutes. Through doing so, the audience is even more immersed in the introduction to the TVA than Loki who is left standing a few steps away from the TV and therefore still aware of his further surroundings. Miss Minutes goes on as follows:

“But then, the all- knowing Time-Keepers emerged, bringing peace by reorganizing the multiverse into a single timeline, the Sacred Timeline. Now, the Time-Keepers protect and preserve the proper flow of time for everyone and everything. But sometimes, people like you veer off the path the Time-Keepers created. We call those Variants. Maybe you started an uprising or were just late for work. Whatever it was, stepping off your path created a Nexus event, which, left unchecked, could branch off into madness, leading to another multiversal war. But don't worry, to make sure that doesn't happen, the Time-Keepers created the TVA and all its incredible workers. The TVA has stepped in to fix your mistake and set time back on its predetermined path. Now that your actions have left you without a place on the timeline, you must stand trial for your offenses.” (09:57-11:05)

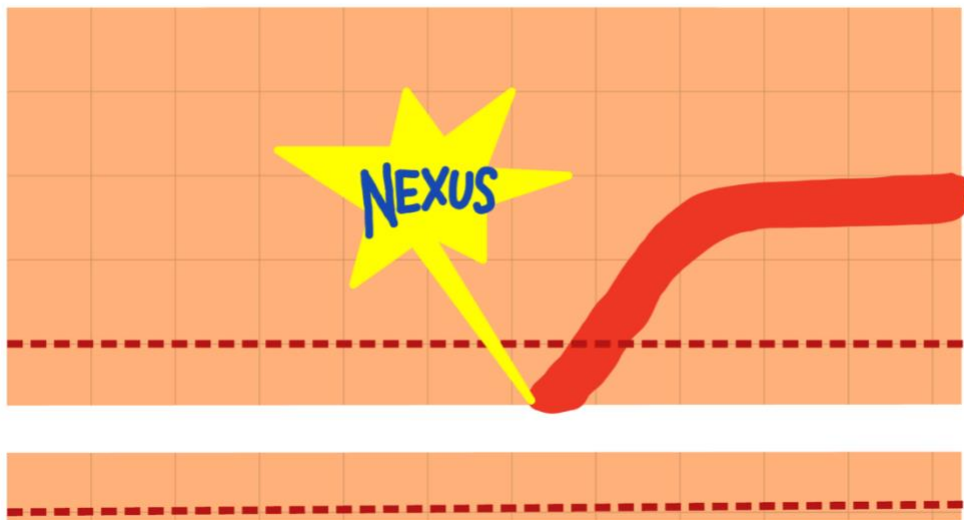
As the length of the guidance barrier and ticketing system suggest, the TVA has the capacity of handling multiple variants at once and this presumed efficiency is emphasised by the use of a pre-prepared video to ensure that all new variants are informed on the reason and necessity of their capture. Therefore, the video itself is significant for the plotline since it provides Loki and the viewer with the necessary background information of the multiverse and its current state, especially because the multiverse had not yet been properly introduced in the MCU. In other words, the video introduction can be viewed as a form of 'edutainment' for intradiegetic and extradiegetic watchers alike. The term refers to a blend of education and entertainment and can be defined as “the process of entertaining people at the same time as you are teaching them something, and the products, such as television programmes or software, that do this” (“Edutainment”). However, the video's importance does not only play an essential role in understanding the intradiegetic world but also blurs the line between the genres of live-action television and animation. The video is entirely computer-generated and is presumably added in the post-production of the series, i.e., it does not even play on the TV prop within the scene. The video does not claim to be natural but explicitly leans into its artificiality through its cartoon

style. It is much more varied and vibrant in its colour scheme, avoiding the muted brown tones of the TVA and aiming to attract attention and to appear positive.

The artificial video is implemented into the live action by appearing on a television, which is why the shift in genre is logically possible. Moreover, it is necessary to summarise and depict the history of the Sacred Timeline, the multiversal war, and the TVA. The use of animation allows simplification of the complex history, and the self-proclaimed aim of the video is not to portray the past and present in full detail but to “catch you up before you stand trial for your crimes” (09:31-09:36). In other words, the variants in custody are supposed to be informed about the TVA and why they have been taken from their timelines in a quick and efficient manner. Therefore, the video relies on easily identifiable visualisation, such as cartoonish lightning strikes to signify war and danger (09:42-09:45). Likewise, the multiversal war is represented through several simplified timelines moving in serpentine motions and battling when they come into contact rather than depicting the millions of individuals on each timeline battling themselves (09:49-09:54). But, at the same time, the use of artificial material in the video raises doubts about the authenticity of the information. Especially since the TVA can access all of time and it is revealed in later episodes that the TVA is situated in the far future, it seems possible to include proof of the information about the multiversal war. While the video should ‘edutain’ children and adults alike, the rejection of any photographic or videographic evidence for the claims still appears problematic. There is no live action footage in the video and the narrating voice hides behind the face of an animated clock, which means that there is no individual who takes accountability for the truth of the statements.

Nonetheless, the artificiality of the genre allows the video to draw on strategies from print-based media, such as comics, and audio-visual media like animation at once. One element the video draws on from print-based media is the writing, for instance in the form of speech bubbles, which add information to the image. In the introduction video, essential information is superimposed on the moving image, i.e., writing and symbols appearing on top of the image (Clark, Baker, and Lewis 21). The phrases “Danger: Multiverse” (10:43) and “Nexus” (10:32) visually emphasise the narration, drawing attention to their importance and, again, ‘edutaining’ the audience. The core of the content is thereby broken down into a few words that flash on screen, in case of the first phrase, or are depicted in an expressive comic lettering in a spiky speech bubble. The latter therefore attracts attention by referring to the origin of the series, the Marvel Comics, a print-based medium where such speech bubbles are used to express strong

emotions or mimic a scream or shout. Furthermore, the video includes motion lines to imitate movement as is conventional for comics and animated cartoons. This helps the audience make sense of the events on the screen. For example, the variant in the video falls down past several clocks and the simple, black motion lines above the cartoon figure clarify that he is indeed falling down and not frozen in place while the background slightly changes (11:02-11:06).



Graph 6: schematic graph depicting E1 10:32

While the video makes use of certain print-based techniques, it predominantly relies on animation to inform people and keep their attention. Aside from the dynamicity of the moving image, this is achieved through audio. Since the animated video is artificially created, there is no natural, diegetic sound to it, but it contains a voice-over and FX to bring the history of the TVA to life. The voice-over is a method often used in documentaries and denotes the use of a voice over images that comments on the depicted action or functions as a linking narrative device (Clark, Baker, and Lewis 22). Here, however, the function of Miss Minutes' overly cheerful southern accent goes beyond narration. The character, who is voiced by Tara Strong, addresses the audience directly. Generally, the mode of address plays a "key factor in establishing the mood and tone of a programme, for example, by being friendly, authoritative, and fun as appropriate" (Clark, Baker, and Lewis 22). The southern accent, direct address and unexpected cheerfulness therefore aim to build a positive mood of the audience towards the TVA, but it feels inauthentic and inappropriate given the context, in which individuals are forcefully erased from their timelines in the name of multiversal peace. This is also the reason behind the unexpected choice to portray an animated clock with a southern accent. In an interview, the voice actress suggests that "it makes the character a more complex figure because

it's hard to reconcile her words with the kind way she delivers them. As a result, it's incredibly difficult to figure out her true nature and where her loyalty lies" (Vanacker).

The FX, which are added sound effects (Clark, Baker, and Lewis 22), emphasise the visual animation and underscore certain key elements in the introduction. As is common for animation, movement and action are audially represented, evident for instance in the thunder sound effects while comic-style lightning strikes appear on screen (09:44), and in the crashes and explosions accompanying the depiction of timelines fighting each other (09:50-09:56). Most discernible, however, is the multitude of sound and visual effects related to time and machinery, fitting into the overall image of the TVA. Visually, time is represented through the mascot herself being an analogue clock without clock hands and several monochromatic animated clocks that the variant in the video falls past (11:03-11:06). The depictions of antique machines, their constant beeping, and workers manually clocking into work construct an image of continuous work, subtly showing off the effort the TVA puts into protecting the Sacred Timeline. Audially, time is omnipresent throughout the video by being the dialogue's explicit focus and through the multiple uses of ticking noises. When walking along the Sacred Timeline, for example, ticking noises are heard to mimic the passage of time along the timeline (10:15-10:22). Furthermore, to counteract the artificiality of the video and ensure interest, the sound is louder and more noticeable in contrast to the waiting room sound ambience in the surrounding frames. Throughout the video, the audience can hear background music even during Miss Minute's narration, adapted to the specific content. At the beginning of the video, the narrator explains the dramatic past of the multiverse, where "countless unique timelines battled each other for supremacy, nearly resulting in the total destruction of [pause] well, everything" (09:49-09:57). Here, the soundtrack is foreboding and intense, heightening the sense of danger and suspense. But when the focus of the narration is on the important purpose of the TVA, the soundtrack turns more positive and hopeful.

If the video is analysed like a television scene, it contains approximately 27 different camera frames, but the exact number is difficult to determine because animation does not necessarily follow the rules of live action television. Here, the background behind the figure of a variant continuously switches, which indicates a change of scenery and would not be possible in live-action television in this manner. The images, both still and moving, overlap because as one fades into the background the next one already appears, adding to the fast-paced sensation of the video. Such a dissolve, a transition where two images overlap and the latter one becomes

gradually more visible, is typical for flashbacks or significant changes in time and location (Clark, Baker, and Lewis 21). In the video, this technique is used four separate times and could be linked to the nature of the flashbacks in the video but also to the comic style, drawing on the individual images of print-based media forms. Nonetheless, the animated events are not isolated frames only tied together by the narration but rather connected like cause-and-effect chains, where one frame leads into the next. This is emphasised by the fact that the ‘camera’ even follows the animated variant while the background fades, for instance panning along the Sacred Timeline while time passes. In turn, this also means that there are few clear cuts between frames, cuts being defined as “the instantaneous change of one camera shot to another” (Clark, Baker, and Lewis 20). The flow between camera frames therefore creates a dynamic and rushed depiction filled with the sense of imminent danger. The pace could be chosen to grab the attention of the intradiegetic and extradiegetic audience, which is often found in educational videos and advertisements to stop people from switching channels or keep scrolling. The voice of Miss Minutes, however, remains stable throughout. She can still be seen when the background changes to visually depict the content of her narration. One example of this can be found in the beginning of the video. While introducing herself, the mascot refers to time criminals in a direct address. “Welcome to the Time Variance Authority. I’m Miss Minutes, and it’s my job to catch you up before you stand trial for your crimes. So let’s not waste another minute. Settle in, sharpen your pencils, and check this out” (09:26-09:42), she draws the viewer into the video. The moment the narration mentions the trial, the mascot appears in a pendulum clock which is made out of a wooden housing with iron prison bars and a ball and chains that function as the pendulum. This aims to graphically represent the wording and is combined with a ticking noise to symbolise time as the nature of the crime, possibly even to depict that every individual is a slave to time in the end. In the framing of the video, it moreover becomes apparent that it appeals not only to Loki but to the audience of the series as well. The ‘camera’ is set at eye-level, drawing the viewer right into the screen. Particularly for the audience, who is immersed in the video on the full screen, the sequence feels like looking into the multiversal war and the Time-Keepers’ endeavours from the outside. On the one hand, this facilitates identification with Loki, who experiences the same load of information. But on the other hand, it again establishes the relationship between the TVA and other characters. The camera following the variant while the TVA and Miss Minutes remain relatively still positions the TVA as superior, which is the intention of the introductory video.

The video ends with the logo and slogan of the TVA, constructing an authentic image of the TVA as an actual organisation rather than a figment of imagination within a series. It is audially underlined with the slogan, which consists of the phrase “For all Time” spoken by Miss Minutes and the response of “Always” by a variety of cheerful voices. The screen shows a symbol of the earth slowly turning around, while the scripture of the TVA is superimposed on it and on the bottom, there is a stamp and note stating “TIME VARIANCE AUTHORITY NARRATIVE COMMISSION”, adding to the authenticity of the TVA as an official organisation. Fraser calls the animated video “an effective exposition tool through the guise of a retro PSA which introduces the TVA clock mascot and the rules of this world.” However, given the context of the video, it appears less like a short, informative PSA and more like propaganda hidden behind child-friendly animation and simplification of violence. In the second episode, “The Variant”, Loki even explicitly calls the introductory video “TVA propaganda” (E2 08:51). The video does not merely “catch you up” (E1 09:31-09:33) but provides only one perspective on the multiversal war that needs to be accepted and cannot be questioned. The comic style and friendly voice-over help play down the violence that is integral to the actions of the organisation. For example, the Time-Keepers have erased all life in the multiverse except for one timeline yet the mass destruction is framed positively as the Time-Keepers “bringing peace by reorganising the multiverse into a single timeline” (10:01-10:05).

As indicated by its name, the multiverse is necessarily diverse, which is why eliminating all other perspectives does not imply freedom but dictatorship. Throughout the video, this one ‘true’ opinion becomes transparent in the lack of other views and in the lexical choices in Miss Minutes’ narration. The Sacred Timeline is not the natural state of the universe but was forcefully created by the Time-Keepers. Yet Miss Minutes calls it “the proper flow of time” (10:13) as if it was always supposed to be this exact timeline that persevered. Additionally, all individual actions out of free will which do not coincide with this exact timeline are deemed a “mistake” (10:54) that the TVA has to step in to fix and to “set time back on its predetermined path” (10:55-10:58). Even if the individual is unaware of the path they are supposed to follow, any action that does not comply with the Time-Keepers’ vision is equated to an “offense” (11:04). The video therefore justifies the mass eradication by indicating evil intent in the variants because “stepping off your path created a nexus event” (10:31-10:33) and now the variant simply has to take responsibility. Visually, this narrative is underlined by three smiling TVA workers which stare at a monitor showing the variant’s file. While there are no words

indicating the variant's crimes, the picture shows the variant with brows that are drawn together and an abnormally large, evil-looking grin, which stereotypes the variant as a villain.

The lexical choices also imply that, in theory, there is free will in the universe of *Loki*. While the characters are restricted in their actions by an outside force, they can consciously or unconsciously exert free will. Miss Minutes even credits the variants as the agents by imploring that they were “your actions” that “have left you without a place on the timeline” (11:00-11:03). While the narration is meant to villainise the variants and position the TVA workers in a positive light for removing them from the timeline, it still grants the variants some agency. This is reinforced in the visualisation of the Sacred Timeline. This timeline is depicted as a thick, white, glowing line without an ending or a beginning, therefore appearing eternalist and fixed. Along it, several beings – not solely humans but animals and robots, too – walk. This indicates that the timeline is static, and beings consciously walk down the timeline as time passes. Consequently, every step along the Sacred Timeline is a conscious decision, making any step off the designated path a conscious decision as well. However, while such a depiction might hint at eternalism, the possibility to act incongruent with the supposed future of the Sacred Timeline contradicts this theory. In other words, the Sacred Timeline is not naturally an eternalist timeline, on which no moment in time can be changed. Instead, it is an artificial construction and unwanted changes are forcefully undone. Therefore, it seems that at least the future of the Sacred Timeline is open and naturally allows for free will.

In contrast to the depiction of the Sacred Timeline, the branching timelines are portrayed in a red colour and split off slowly. Any branching timeline grows from the point of divergence, the nexus event, instead of immediately appearing as an eternal timeline. The narration explains that a “Nexus event [...] could branch off into madness, leading to another multiversal war” (10:32-10:41). This is graphically portrayed through a multitude of red timelines branching off from different points of the Sacred Timeline, growing rapidly and moving around chaotically. Similar to how the timelines interacted in the multiversal war, the red lines seem to battle whenever they meet, indicated by the beeping noise of a warning bell and circular motion lines. To emphasise the danger, the camera then zooms out of the image to reveal that it was part of a statue which is held up by the Time-Keepers and which contains the superimposed warning “DANGER: MULTIVERSE” (10:43). This statue, which is situated in the centre of the TVA, visualises that the possibility of another multiverse is the burden that the Time-Keepers hold on their own shoulders and should presumably be worshipped for. It reinforces the TVA as

omniscient and powerful because the Time-Keepers alone are capable of seeing the bigger picture, the whole universe. In this case, the universe refers to the multiverse that contains multiple timelines that interact, grow, and continue to branch off. The branching timelines are all identical in their red colour and in size in comparison to the white, bold Sacred Timeline. This image might then represent the true nature of the universe most authentically, chaotic rather than parallel or reorganised “into a single timeline” (10:01-10:05).

The video consequently implies several aspects for the analysis of the depiction of time and time travel in the intradiegetic universe of *Loki*. It clearly shows that there is not a single timeline, but that time *can* and *does* branch if not hindered by an outside force like the Time Variance Authority. The explicit naming of the multiverse and the visual representation of the madness of branches verify this assumption. Time behaves like branches that can grow from points of divergence, here designated as nexus events. Concerning the nature of branches, the admittance of free will contradicts an eternalist claim but the concept should not yet be excluded from the further discussion. There are instances throughout the series that indicate eternalism and will be analysed in the next chapter. Looking at the video in isolation, the Sacred Timeline is portrayed as eternalist. But as a veering off the path is possible, the visual depiction alone is insufficient to justify eternalism. Similarly, the possibility to change the past and future, which will play an essential role in the further development of the series, suggests presentism but the visualisation in the video clearly negates this option. A visualisation in accordance with presentist theories would not contain any instances of the past or of the future. It would only consist of the present because only the present moment can exist and thus be depicted. Instead, the behaviour suggests that the past and present are real and that the future is not yet fixed but open to change through the individual. In combination with the branching timelines steadily growing from the point of divergence, this applies to the growing block theory. The new branching timelines are furthermore not found but created through divergence, which implies a presentist multiverse. However, the video does not contain sufficient information to conclude whether there was originally one timeline and all other timelines simply branched off that one or if there was always a multiverse full of similar timelines.

While the video itself provides explicit information on the multiverse and the conceptualisation of time in *Loki*, the surrounding shots of the longer scene aid in setting up the TVA as an organisation. Therefore, I will discuss the remaining five frames of the scene shortly. At first, Loki is represented as superior, or rather as feeling superior. This is reflected in his reaction to

the introduction video where he calls the Time-Keepers and the Sacred Timeline simply a “bunkum” (11:25-11:29). While stating this, the camera is angled up from below, showing Loki in a mid-shot from the chest upwards, with only rows of lamps in the background. In turn, Loki himself is looking down towards the right lower corner, implying that Loki is literally looking down on the TVA and its principles. This suits Loki’s character as established in the MCU prior to the series and fits the low camera frame, which is typically used to “emphasise power, strength, or importance” (Clark, Baker, and Lewis 19) of the subject.

Nevertheless, the mood changes as the second variant is immediately pruned for not showing his ticket and for complaining to the minuteman handling his transactions. Pruning refers to being eradicated from the timeline through the minuteman’s pruning baton. Once the baton is activated and touches the variant on the right shoulder, the character starts disappearing from the point of touch outwards. This is achieved through the use of CGI, which includes sparkly blue and yellow special effects. This instance of CGI is the only use of special effects in the live action of the scene, which challenges the conventional expectations of an action-packed superhero franchise but emphasises the bureaucratic nature of the organisation. The frame is accompanied by the loud, uncomfortable swooshing sound effect used for pruning and the variant’s voice becoming warbled and finally erased. In a long shot lasting from 11:31 to 11:42 minutes, the camera takes on Loki’s POV and depicts the event of pruning through his perspective. This enables the character and the viewer to simultaneously experience the unexpectedly violent reaction to not having a ticket. The frame switches to show Loki’s face in a medium close-up from the chest upward, focussing on his worried expression and frantic search for his own ticket. Ironically, this action is accompanied by the cheerful sound of Miss Minutes’ voice from the off, expressing her gratitude for “visiting the TVA” and asking not to “hesitate to let us know how we’re doing” (11:49-11:53). Out of context the reason for such an announcement might be genuine interest in customer satisfaction but, given that Loki was involuntarily kidnapped and forced to visit the TVA, it appears mocking.

Along with the prior POV shot, this sequence accomplishes two aspects important for establishing the tone of the series. First, it depicts a sharp twist from Loki’s superiority shown only moments before. It places Loki, the god of mischief, into the greater context of the multiverse, where he is identified as simply another individual on the timeline. In other words, his name and powers are unable to save him if he cannot provide his ticket. As a result, the TVA is set up as powerful authority and this power balance defines the entire series. Second,

the sequence encourages the audience to position themselves on Loki's side rather than on the allegedly peace-keeping TVA. Through the usage of the POV shot and the subsequent close-up, the audience experiences the violence and resulting power shift together with the character. Close-ups aim to draw the viewer into the action and position them to "privilege the protagonist over other characters" and "identify with [them]" (Clark, Baker, and Lewis 18). Additionally, even neutral frames that are not distinctly shot from Loki's point of view contain camera angles that are at Loki's eye level rather than a high or low angle, aiding in the identification of the viewer with the protagonist.

With Loki successfully finding his ticket and holding it up, the scene ends with a fade to black and the display of the title sequence (11:53). As was the case in the scene before, the exact aim of the title sequence and its theme tune is to establish and reinforce the identity of a television series (Clark, Baker, and Lewis 22). The scene which predominantly sets up the relationship between Loki and the TVA is followed by the theme tune and title sequence to emphasise the importance of the few minutes of television for understanding the show further. The organisation has therefore successfully been established as superior and omniscient, but moreover the viewer has gained essential insights into its past and purpose. The introductory video might seem 'edutaining' and provides the viewer with the necessary background knowledge to follow the series, but its comical artificiality and emphasised friendliness raise doubt about its honesty. Essential information, for instance about who the Time-Keepers are and how they could erase entire timelines, is omitted. The soundtrack shapes the experience of the video and scene as it is utilised to contrast the pacifist and trustworthy image the TVA attempts to portray. Even during the dialogue, the foreboding, pessimistic but muted background music can be heard so that there is never a moment of true silence. Similarly, all elements of the set design, which are meant to visualise bureaucracy and efficiency, are opposed within the scene. After all, the TVA relies on archaic technology and on fixed processes, even when there are only two people in the room. Furthermore, the proposed friendliness is cancelled out by the unnecessary violence against the other variant, who had already been taken from his life involuntarily.

In summary, the scene creates discomfort and distrust in the audience through content, audio, set design, and the overall framing, meaning "the control of visual elements within the camera frame" (Clark, Baker, and Lewis 20). These feelings in the audience are essential for the further experience of the TV series because it portrays the TVA, and thus Miss Minutes, as an

unreliable narrator. As a result, the viewer likely questions if the concept of time and the TVA's control of it are a true depiction of reality or simply a propaganda for the organisation to prevent rebellion. I have consequently included the scene surrounding the video in the analysis because the introduction of the organisation foreshadows its role as main antagonist in the series and provides the audience with necessary context clues to interpret the video's message more critically. This multimodal analysis consequently indicates a branching conception of time according to the growing block theory through the graphic visualisation of the timelines. However, this scene in isolation cannot be the sole basis for such a claim since the context of the scene identifies Miss Minutes and the TVA as unreliable narrators, which is why further analysis is necessary to substantiate these arguments. The further chapters thus explore how the concepts of time travel, the behaviour of time, and free will are explained and applied in the subsequent episodes of *Loki*.

### 3.2 Time travel in *Loki*

In the TV series *Loki*, time and time travel are the central plot elements but the travel itself is rarely depicted and simply consists of walking through a so-called Timedoor. The series contains elements of both fantasy and science fiction genres, aiming to explain time travel through technological devices even if they are powered by a fantastical power source. *Loki* can therefore be described as having a counterfactual setting and the show neither claims that time travel is possible in the audience's universe nor fully justifies the details of time travel. This is first seen in the pilot episode "Glorious Purpose", which begins with two different representations of travel, neither of which are explicitly explained in the series. While one form of travel is through time by the TVA agents, the other form of travel, carried out by Loki himself, is not commented on and could therefore be through time or merely through space. This complicates the analysis of the underlying conception of time but, nonetheless, the instances of time travel in *Loki* and particularly their discussion by the characters provide helpful contextual clues for understanding how time behaves. As mentioned before, Loki escapes from his fate in *Avengers: Endgame* by using the powers of the Tesseract, the infinity stone of power. This scene is depicted in both the blockbuster and in the pilot episode, establishing a continuity between the movies and the series. As is typical in the Marvel Universe, the actions of a character in one publication even affect other publications in a tangible cause-and-effect chain. Only the series shows the destination of the travel, namely the Gobi Desert as the audience is informed through a superimposed scripture (E1 02:14). Given

that the instances of time travel are typically paired with a superimposed geographical and temporal location, Loki presumably only travelled in space to be unreachable by the Avengers. However, the abilities of the power stone are diffuse throughout the MCU and include brain control or opening intergalactic portals in the 2012 *The Avengers* movie. The addition of time travel does therefore not seem impossible.

Similarly unexplained is the arrival of the minutemen in *Loki*. The Timedoor, an orange, almost transparent rectangular portal, suddenly appears and three TVA guards in complete tactical gear walk through. This is followed by another door, which reveals Hunter B-15, a female minuteman. In these frames, the underscoring loud, foreboding sounds indicate the proximity of danger (E1 03:14-03:29). While the travel remains uncommented on, Hunter B-15 is quickly capable of identifying Loki as a variant through the use of her TemPad. This technological device monitors the timelines as they branch off the Sacred Timeline and analyses at which point in time they will be irreversible, leading to another multiverse. The tool therefore allows the TVA to oversee time's behaviour (E1 03:30-03:38). How this ability translates into the capability to travel in time is not discussed in the series. Time travel in *Loki* is possible through technology, but because the TemPad is not explained in the series, certain questions, for instance how time travel works in detail, remain unanswered. A closer look at the TemPad technology in the second episode, called "The Variant", confirms that the time travel in *Loki* is based on the TemPad but requires no further instruction or powers. Sylvie, a female variant of the titular character Loki, steals the TemPad of a minuteman and travels through time. Doing so without working for the TVA seems astonishingly easy since she only selects the program "TIMEDOOR" on the device and steps through the portal appearing out of thin air (E1 04:24-04:44). These two frames featuring the TemPad simultaneously emphasise and contradict the power of the TVA and the Time-Keepers. On the one hand, the technology implies that the TVA is omniscient, because they are always informed about any nexus event and can travel there to eradicate the branching timeline. On the other hand, there is a limit to these abilities because once the new branches cross a certain threshold, they can no longer be stopped by the TVA.

In the second episode, this is highlighted by Miss Minutes, who is now an animated being who is part of the live action world. She continues 'edutaining' Loki and the audience, taken to the extreme by the fact that she is now alive and can interact with the character directly. As if following up with a quiz about the introductory video of the first episode, the mascot demands

to “review what we’ve learned. What happens when a nexus event branches past red line?” Lacking enthusiasm but still complying, Loki replies that “it’s when the TVA can no longer reset a nexus event.” There is no additional information about why that is the case, but Miss Minutes warns that such an incident “would lead to the destruction of the timeline and the collapse of reality as we know it” (E2 05:06-05:32). This then begs the question of how the Time-Keepers were able to erase all timelines but one if they do not possess the powers to erase established timelines. This example represents just one of the contradictions found in the show’s continuity that complicates an analysis of the series and reminds the viewer that *Loki’s* counterfactual setting does not have to adhere to the logics of the viewer’s universe.

Generally, the series utilises Loki and the guise of training him in the TVA’s internal processes to relay information to the audience. This is how the show introduces its new technologies without disrupting the flow of the live action. In the name of training, Loki is asked to review the function of a reset charge, a device holding an orange liquid that can “prune the affected radius of a branched timeline, allowing time to heal all its wounds” (E2 08:54-09:02). Loki comments on this information, sarcastically remarking that this “sounds like a nice way of saying disintegrate everything in its vicinity” (E2 09:02-09:04). This allows the viewer to look beyond the narrative told by the TVA and reflect on the organisation’s propagandic phrasing more critically. In a way, Loki voices what the audience might think, which again aids the identification of the viewer with Loki rather than with TVA agents. However, despite the edutainment lesson, it is only in the final episode, which is titled “For All Time. Always.”, that the origin of this orange liquid is illuminated. In it, the main characters Loki and Sylvie finally meet Kang, portrayed by Jonathan Majors. He has created the TVA and for the greater part of the episode he justifies his reasons for doing so. Through his explanations, the viewer gains more knowledge about the multiversal war and the Sacred Timeline than was shared in the introductory video. To demonstrate his monologue, Kang utilises the orange liquid, which was before only found in the reset charges and in the Tempads. Here, it can inexplicably create moving images to illustrate Kang’s explanation, which is as follows:

“Eons ago, before the TVA, a variant of myself lived on Earth in the 31<sup>st</sup> century. He was a scientist and he discovered that there were universes stacked on top of his own. At the same time, other versions of us were learning the same thing. Naturally, they made contact. And for a while, there was peace. Narcissistic, self-congratulatory peace. [...] They shared technology and knowledge. Using the best of their universes to improve the others. However, not every version of me was so ... so pure of heart. To some of us, new worlds meant only one thing,

new lands to be conquered. The peace between realities erupted into all-out war, each variant fighting to preserve their universe and annihilate the others. This was almost the end, ladies and gentlemen, of everything and everyone.” (E6 20:45-22:14)

The solution to this multiversal war was the creation of the Time-Keepers, which have since been worshipped as the heroes. So far, this explanation reflects peace as the main argument for the necessity of the TVA as proclaimed in the introductory video. Nonetheless, the important details lie in the omissions, particularly how time travel is possible in the first place. The first variant of Kang discovered Alioth, a cloud-like creature that is “created from all the tears in reality, capable of consuming time and space itself” (E6 22:37-22:44). Through capturing the creature and weaponising its powers, Kang managed to end the multiversal war by destroying all timelines but his own. For this to be possible, Kang needed to isolate the timeline in which he captured Alioth. Looking back from his present, which is situated in the future beyond the 31<sup>st</sup> century, the villain therefore only had to identify the timeline that would eventually lead to his victory and “manage the flow of time and prevent any further branches” (E6 23:15-23:19). This represents the origin of the TVA. The organisation is consequently truly tasked with overseeing the multiversal peace and protecting one timeline. Still, the timeline is not sacred by a natural higher power but merely selected by one individual to ensure his own victory over his variants in the future. As evident in Kang’s expectation of gratitude, the villain seemed to have benevolent intentions at the expense of other universes and free will. He may be aware of being a “dictator” (E6 24:19), as the character calls himself, but compares his actions to the possible actions of his variants, who are the allegedly evil versions of himself. What is noteworthy is that Kang’s monologue references the character’s comic book alter ego Kang the Conqueror, who first appeared in *The Avengers* #8 (1964). This character is known as a powerful villain, which is why *Loki*’s Kang warning about his variants, who might aim to conquer other universes, might be a nod towards the comic’s Kang the Conqueror. It might even be a threat for the audience, hinting that the Conqueror might appear in the MCU if Loki and Sylvie free the multiverse.

Regarding the intradiegetic logic, Kang’s explanation may indicate the origin of the orange liquid and its abilities to prune timelines, but it does not justify how the ability to *consume* time enables individuals to *travel* through time. Additionally, the matter in timelines is not completely erased when pruned. Even with the help of the liquid, the matter can only be transferred to the so-called void at the end of time where Alioth is situated and truly consumes

it. Timelines can be erased by Alioth even after they have crossed the red line, the threshold, or otherwise the creature's powers would not have sufficed to erase all but Kang's timeline in the multiversal war. As the TVA is harnessing these powers, it remains unanswered why established timelines beyond the threshold can then not be pruned by the Time Variance Authority. In Kang's monologue that time travel is not mentioned a single time and not even explained by the means of pseudo-scientific, multiversal creatures. Time travel is possible because of Alioth's powers alone, which is evident in the sixth episode when Sylvie opens a Timedoor simply through touching a stone containing the orange liquid (E6 35:15-35:30). Doing so, Sylvie sends Loki back to the TVA, but it is not clarified how she can determine the destination of the time travel without the use of a TemPad. But even the TemPads are limited in their abilities to time travel and require to be charged. Having stranded on a planet with imminent destruction, Sylvie and Loki cannot travel back to the TVA because their stolen TemPad is "outta juice" (E3 06:54). For the sake of the plot and character development, Loki and Sylvie have to work together to get the TemPad recharged, which then leads to them forming an honest alliance for the first time in their lives. This necessity to be stranded and isolated seems to overrule the need for the greater coherence of the series because according to Sylvie the TemPad can be recharged with any power source on the planet as long as there is "enough to travel through inter-dimensional time and space" (E3 10:43-10:45). This scene suggests that it is the TemPad that enables time travel rather than Alioth's powers that are made usable through the device, which contradicts the justification of time travel and pruning mentioned before. However, the scene is essential as the crisis of being stranded in an apocalypse requires the main characters to collaborate. This includes relying on one another because Loki holds on to the TemPad and only Sylvie possesses the knowledge of how to recharge it. Against the inherent traits of a Loki variant, which have been established as distrust and disloyalty in prior MU products, Loki and Sylvie have to work together without betraying one another. While not harmonical from the start, it is this challenge that functions as the trigger for their character developments which define the series.

The internal rules of time travel in *Loki* are diffuse and to a degree compatible with each other but not necessarily compatible with the rules of time travel in the Marvel Universe. In the second episode a team of minutemen travel back in time to 1985's Wisconsin to capture Sylvie but are defeated by her. One female minuteman reports that the variant has been detected but that there is "no nexus energy yet" (E2 02:52-02:54). However, the scene does not comment on the possibility to detect the variant without a nexus event being set off since, throughout the

series, the TempPad is solely capable of monitoring timelines branching off. As a nexus event is the prerequisite for such a branch to be formed, it remains unclear how the TVA can detect Sylvie in 1985 and how they can travel there. According to the rules of time travel in the Marvel Comics set by Gruenwald, one cannot travel along one's own timeline and it is impossible to travel to the same timeline again. Following these rules, time travel along the Sacred Timeline would be impossible for the minutemen. While it could still be the case that minutemen can only travel to the split off branches, this is not the case in this scene. When discussing this mission, Hunter B-15 explains that the team "jumped into the 1985 branch" (E2 06:12-06:15), meaning there must have been a branch that the TVA could have travelled to. Again, this contradicts the reported lack of a nexus event. Loki, Hunter B-15, TVA agent Mobius M. Mobius and several unnamed minutemen then also travel to this 1985 Wisconsin branch and arrive there to the aftermath of the mission (E2 08:21-08:28). Given that the aftermath can be perceived here and that the "apex of nexus signature" (E2 08:28) can be located there, this seems to be the exact branch visited by the TVA agents and Sylvie before. Consequently, *Loki's* rules of time travel in branching time allow for time travellers to travel to the same branches because otherwise the travel itself would have resulted in another branching, which the TVA would have been able to perceive on their monitors. Time travel to the same branch is rarely discussed, but Mobius claims that if a variant finds a suitable hiding place along the Sacred Timeline, "there's no reason he can't keep going back and just camping out, over and over" (E2 33:15-33:21). The notion that travelling to one branch must always set off a new branch is therefore not existent in the series, presumably for the sake of the plot. After all, it would make the task of the TVA impossible if every time the minutemen travelled to a branched off timeline to erase it, another branch would be inevitably formed. Maintaining the Sacred Timeline in its isolated, singular form would then be unmanageable, and the Time Variance Authority and Kang's plans would be unnecessary, leading to a redundancy of the entire series.

If it is possible to travel to the same branch, it should also be possible to change what has happened on that branch. Loki takes on the role of the questioning investigator again because he is as new to the organisation as the audience, asking questions about the process of time travel. This allows the show to answer impending questions the viewer might have while they are still watching. In other words, Loki functions as a mitigator between the intradiegetic and the extradiegetic world, for instance by asking "Why don't we just travel back to before the attack?" (08:32-08:35), a question a viewer might also have regarding this scene. To clarify the matters, Mobius rationalises that "nexus events destabilise the time flow" and that since "this

branch is still changing and growing, you gotta show up in real time” (08:37-08:45). This, however, does neither explain what ‘real time’ is in the context of time travel nor why no changes can be made to a timeline that will be erased anyway. Instead, it adds to the confusion since the two travels to 1985 seem to be based on two vastly different definitions of the term ‘nexus event’. The first travel seems to refer to the crossing of the red line as the nexus event while so far and in the second travel, it has referred to the point of divergence that leads to a branching in the timeline. The definition used later in the second episode is able to bring these two perspectives together. Here the nexus event is explained as someone doing “something they’re not supposed to do” which then “cascades into a whole range of other things that aren’t supposed to happen [...] until eventually, a new timeline branches” (21:52-22:12). This enables the connection of the introductory video in the first episode and the time travel in the second episode, but it does not yet paint a coherent picture of how timelines branch. After all, the video clearly depicts the nexus event as the point of divergence that leads to a branching of time. The minutemen can travel to the 1985 branch, which means that the branching must have happened at this point. The contradiction consequently remains.

Time travel without causing new branches contradicts the scientific definitions of branching time and the particular rules of the Marvel Universe set by Mark Gruenwald. Even the Avengers’ travel through time in *Endgame* has – although inconsistently – caused branches, with the heroes only capable of arriving at alternative pasts but not their own timeline. Looking at the greater coherence of the Marvel Universe, *Loki*’s rules of time travel in the multiverse do consequently not correspond to the commonly accepted rules. However, it must be mentioned that especially in the Marvel Comics these rules are not consistently followed and that there have been instances of travel to other branches that already existed without creating a new branch, for example in comics by writer Jack Byrne. Despite Gruenwald’s official rules, the multiverse in the comics is mainly regarded as an eternalist multiverse, in which all timelines already exist and do not branch off. However, *Loki*’s multiverse is difficult to compare with this concept because the viewer never gets to see the fully formed multiverse. In other words, it could be the case that all timelines would already exist in their natural form and simply grow in the series because they have been restricted. Furthermore, the series is directly linked to the movies of the MCU. As time travel causes branching of the timeline in *Endgame*, the omission of this rule in *Loki* must be a conscious choice based on the plot. The specific allowances of travelling along one branch and of travelling without branching events therefore contrast the portrayal of time travel in the MCU so far, even though the portrayal is limited and inconsistent.

Nonetheless, the branches that form because of nexus events strongly indicate a branching multiverse rather than an eternalist one, in which no branching takes place.

To summarise, time travel in *Loki* can occur between branches of time and along one timeline. It is thus best described in the words of Sylvie as a mixture of “inter-dimensional time and space” (E3 10:43-10:45) travel. The ability to travel in time is based on the powers of a creature that was created through the interactions of alternative timelines in the multiversal war and explained no further. The science behind time travel in the series thus remains unclear since the powers can be applied with the help of digital tools but also through simply touching the creature’s liquid. Given the numerous gaps in this explanation, I can only conclude that in *Loki* time travel is possible and related to the concept of branching time. However, the logic of time travel is not consistent throughout the series and is dependent on the concepts of nexus events and time travel along one branch, which are inconsistently theorised and applied in *Loki*. What is noteworthy is that the rules for time travel in the series are incompatible with time travel in the coherence of the Marvel Universe, particularly the Marvel Cinematic Universe. The ability to travel to the same branch multiple times and to travel through time without setting off a nexus event is crucial for the logic of the plot and for character development because otherwise no villainous feat of isolating a single timeline could ever be possible and no rebellion against it necessary.

### 3.3 Behaviour of Time in *Loki*

Similar to the details of time travel, there is little explicit exploration of the nature of time in *Loki*, but here the contextual and visual clues allow a proper analysis. In this chapter, I will therefore consider the implications of time travel and the depictions of timelines with the theories of eternalism, presentism, time as a growing block, and branching time in mind. One theory, presentism, can be excluded from further investigation based on the visualisation of the Sacred Timeline and branched timelines. Throughout the series, timelines are graphically portrayed as existing or growing lines but according to presentism only the present can be real. In other words, a visualisation of the theory would only consist of present moments and disregard the past or future. As can be taken from several depictions discussed in the previous chapters, this theory cannot be applied to the understanding of time in *Loki*. There are, however, indications of presentism in the continuous warnings not to change even a tiny detail in the past.

For example, Loki and Mobius travel to 79 AD to the destruction of Pompeii, and Mobius claims that any change can lead to a nexus event with catastrophic consequences. Loki nonetheless tells the inhabitants that he is from the future, but his actions do not cause any changes to the present because any branching timeline is destroyed through the local apocalypse either way (E2 21:30-27:30). Mobius's warnings imply that a changing of the past is possible and could affect the development of the timeline, which would not be the case in eternalist or growing block views. If facts could not be changed, then the TVA would not be adamant about being careful. At the same time, no actual change takes place in the series, which is why this simple indication cannot be verification of an underlying presentist concept. What is more probable is that the characters are unaware of time being non-presentist and fear possible repercussions, particularly because the show contains a multitude of arguments for non-presentist theories in contrast to the warnings in favour of presentism.

Therefore, I will concentrate on eternalism and the growing block theory, two non-presentist perspectives, which argue that more than the present should be considered 'real'. This decision is based on the graphic visualisation of time, and the show's exploration of time in dialogue. Visually, the timelines portrayed always consist of a line rather than a singular point in time. They either grow or are depicted as continuous, indicating eternalism or time as a growing block. In the introductory video, the Sacred Timeline is visualised as one line without a beginning or an ending, which is typical for eternalism. In comparison, the branching timelines grow steadily from the points of divergence. The Sacred Timeline isolation would thus be an argument for an eternalist worldview, especially because the introductory video shows individuals walking along the timeline (E1 10:16-10:22). Such a portrayal is typical for eternalism which claims that time itself is not dynamic but that it is the individual who moves past points in time. The points in time always exist and are fixed in place like houses on a block which the individual passes. However, this depiction does not contradict the growing block theory as its past behaves like a block of houses as well. Therefore, the extract of the Sacred Timeline shown on screen can also represent a fragment of a growing block timeline.

Generally, it is difficult to analyse the nature of time in the multiverse because of Kang's external restrictions of the flow of time. The viewer's understanding of how time naturally behaves in the multiverse is limited to what the TVA allows other characters to experience. However, TVA judge Ravonna Renslayer comments on the initial time travel by the Avengers that led to Loki's escape and nexus event. In the pilot episode "Glorious Purpose", in which

Loki finally stands trial for his crimes against the Sacred Timeline, his escape is deemed a “sequence violation 72089” (E1 15:16-15:20). He pleads innocent and argues for the Avengers to be imprisoned instead, stating that he “only came into possession of the Tesseract because they traveled through time” (E1 15:54-15:58). Loki even suggests capturing the Avengers if he were given the resources to do so. However, Renslayer is not only aware of the actions of the Avengers but accepts their travel in time because “what they did was supposed to happen. You escaping was not” (E1 16:22-16:26). This not only reinforces the Time-Keepers’ powers since they can authorise what is supposed to happen, but it again villainises Loki. The Avengers are identified as the heroes throughout the MU and even when they are not directly present in a franchise, they signify the ‘good’ characters. Their actions had benevolent intentions and effects while Loki’s escape is equalled to selfishness. In other words, the TVA characterises Loki not only as a villain because he is a variant but also because his character has been set up as the ‘bad guy’ since the first phase of the MCU.

Renslayer’s statement seems to imply the Sacred Timeline as eternalist, with all facts being fixed and the Avengers’ travel thus being predetermined in a causal loop. But in an eternalist universe, no changes are possible, and this means that all time travel is necessarily predetermined. Loki travelling through time without this being ‘supposed to happen’ is thus not compatible with eternalist time. In other words, the possibility for nexus events is sufficient to disregard eternalism as the underlying concept of time in *Loki*. If no event on the timeline can be changed from its eternally fixed form, then no undetermined action can be carried out which can lead to a branching in the timeline. However, even taking on presentist or growing block perspectives, the concepts are unclear and appear to be a mixture of the theories rather than clearly marked as one of them. For presentism, no events can be determined as all facts are mutable, i.e., any time travel must cause tangible changes to the timeline. Moreover, the past is immutable according to the growing block theory and changes due to time travel are only feasible for future but not past events. The fact that some time travels can occur without consequences while others cause deviations and branches consequently fits into neither theory and must be accepted as necessary for the plot but as incompatible with the rules of presentism, eternalism or time as a growing block.

The aim of having the Avengers’ time travel be compatible with the Sacred Timeline is two-fold. For one, it is paramount to the plot that Loki’s escape created a nexus event and required the interference of the TVA because otherwise, the show’s narrative would have ended

immediately after the events of *Endgame*. If the Avengers' travel was considered a crime against the Sacred Timeline, then the TVA would have to step in and 'fix their mistake'. As I have discussed in the second chapter, the time travel in *Endgame* caused branches. If *Loki* and *Endgame* are set in the same universe, any branching would have endangered the Sacred Timeline and would have required interference by Kang. Logically, it can thus not be possible that the Avengers' time heist was allowed and 'supposed' to happen. This would only make sense if the nature of time was eternalist. However, as I have argued before, the depiction of time and time travel in *Loki* is incompatible with such a behaviour of time. Consequently, the reference to the time heist is necessary for linking *Loki* to the Marvel Cinematic Universe but disrupts the internal logic of the series. As a second aim, it establishes the omnipotence of the Time Variance Authority since the Time-Keepers, or their creator Kang, can determine which actions are allowed to take place and which are regarded as sequence violations. Through doing so, the organisation creates an image of an eternalist universe where all facts are predetermined while any deviations are eradicated. The universe of *Loki* is hence not fully eternalist, but the TVA restrict the flow of time to the degree that the Sacred Timeline appears as if it behaved eternalistically. This is emphasised by Mobius verifying that "everything is written. Past, present, future. There's no such thing as free will" (E2 30:04-30:10). All moments in time are already determined and immutable, hinting at eternalism but the possibility for nexus events and the need for the TVA to externally undo change still contradict the theory. I therefore argue that the organisation, and consequently the show's main villain Kang, attempt to present the Sacred Timeline as eternalist to suppress any resistance against his reign. If individuals truly believe that their future is predetermined, they will consider themselves powerless and refrain from acting freely. This is why the Sacred Timeline is visually depicted as a never-ending, strong line in the introductory video and on the monitors of the organisation throughout the series (see for example E3 08:52 or E6 37:20).

In summary, the arguments against eternalism outweigh the sparse portrayals of the Sacred Timeline as eternally fixed. When asked by Loki: "How does it all end?" (E2 30:25-30:27), Mobius replies that the end is still "a work in progress" (E2 30:27-30:29), implying that the future is not in fact naturally predetermined. Rather, the Time-Keepers are continuously deciding on the path of the Sacred Timeline. The TVA's task is consequently to protect only the flow of the Sacred Timeline in the past but not in the future. Such an asymmetry in the behaviour of the past and the future is found only in the growing block theory but not presentism or eternalism. Eternalistically, the future would be as immutable as the past, but the series

features a certain point in time from which on future events are undetermined. This point is termed the ‘threshold’ and explored in more detail in the sixth and final episode of the first season. The threshold lies beyond the void, in which all matter of the pruned timelines is consumed by Alioth. There, the matter “won’t continue growing” because “every instance of existence collides at the same point and simply stops” (E5 04:49-05:11). By passing this void the main characters arrive at the citadel at the end of time, visually represented as situated outside of time rather than part of the Sacred Timeline. The Sacred Timeline, depicted again as a glowing white line, flows around the citadel and can be seen with the bare eye (E6 02:37). In the frame, lights within the Sacred Timeline shine and move, signalling that time is dynamic and still passing. This contrasts the static timeline, which is depicted on the TVA monitors throughout the series. Time can thus be perceived visually by the characters and the audience instead of experienced only implicitly. There is, however, no explanation of how a place outside of time can be possible because no time could pass in the citadel and the characters would technically have to be frozen in time and space.

The beginning of the sixth episode is coined by this unsettling scenery of the citadel and the eery, intentionally uncomfortable emergence of Miss Minutes in the form of a jump-scare. Despite the friendly southern accent, there is no longer any doubt about the mascot’s propagated helpfulness. Not only does her cheery “welcome to The Citadel at the End of Time” (E6 04:54-04:58) not match her threatening presence, but she contradicts her explanations of the Sacred Timeline in the first episode. In contrast to the insistence that no unauthorised actions may take place, the animated clock now offers to change the characters’ destined paths. All of a sudden, it is possible to “reinsert both of y’all back into the Timeline in a way that won’t disrupt things” (E6 05:31-05:36). Miss Minutes offers Loki to win the Battle of New York, to kill Thanos or to finally rule over Asgard as its rightful king while Sylvie is promised “to wake up tomorrow with just a lifetime of happy memories” (E6 06:31-06:36). Despite their nexus events, the characters could live peacefully on the Sacred Timeline. This is taken to the extreme by the claim that Sylvie and Loki, two variants of the same individual, could live there together (E6 06:36-07:04).

As it was already tangible in the introduction video in the first episode, Miss Minutes is now clearly identifiable as an unreliable narrator. All information in the video therefore becomes questionable and needs to be viewed critically. One important truth that has come to light is that the Time-Keepers do not exist but are only robots relaying orders from Kang himself. Only in

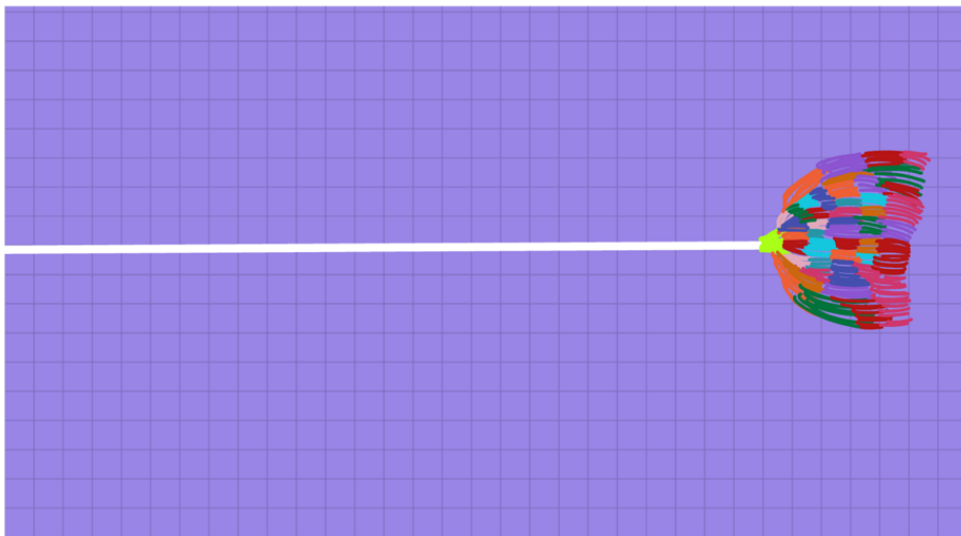
the final episode does Miss Minutes admit the true history of the Time Variance Authority by introducing the show's villain as "He Who Remains" since "he created all and he controls all. At the end, it is only He Who Remains" (E6 05:08-05:22). Kang possesses the powers which the TVA claimed to have. He can bend subjective time, knows everything that has ever happened and can travel through time. Similar to the omniscience about Loki's past and future actions by the TVA, Kang proposes that he is invincible because he "already know[s] what's going to happen" (E6 14:30-14:33). Written on a piece of paper by a typewriter, the exact words that Loki, Sylvie, and Kang just uttered are presented, signalling that Kang indeed predicted this moment in time correctly.

This omniscience is a trick carried out with the help of Alioth's powers. Kang has "lived a million lifetimes" and "gone through every scenario" (E6 24:28-24:34). While the logic of these statements is not explored in the series, they suggest that through Alioth's powers and utilising his variants, Kang has noted down all possible scenarios necessary to isolate the Sacred Timeline. Through doing so, he could ensure his victory in the multiversal war and arrive at this point in time, appearing omniscient to other characters and the viewer. Furthermore, this means that Kang cannot know or determine the future without having lived through it. The limit of his powers therefore lies in the moment in time that represents the furthest future moment he has ever experienced, "the threshold" (E6 27:52). This significant moment occurs in the middle of the villain's monologue, signalled by a distant rumbling that the audience and characters can hear at 27:30 minutes in the final episode. The rumbling, which resembles a thunderstorm coming nearer, indicates the threshold that the characters have just crossed. Kang reacts nervously to the sound, emphasised by a sombre soundtrack that merges into a crackling sound interspersed with thunder (E6 27:30-28:12). This specific soundtrack continues in the background of Kang's further speech, which now lacks the prior self-certainty and proclaimed prowess. Admitting that he has lied, the creator of the TVA clarifies that he only knew "everything up to a certain point, and that point was about seven, eight, nine, ten seconds ago. But now I have no idea. No idea how the rest of this is going to go" (E6 28:27-28:45). This speech is audially and visually underlined by the branching of the Sacred Timeline situated outside of the citadel, with the crackling sound increasing while the timeline already breaks off at four separate points in time (E6 28:43). Even while the timeline outside is not explicitly shown, the rumbling and crackling sounds continue to signal the dynamicity of time and that the timeline is already branching.

There are different interpretations that can explain this scene, for instance the threshold can simply be taken as a sign that the TVA and its aims – as proclaimed in the introductory video – are a scam by a villain to control the universe. However, I argue that the threshold is the most essential aspect of understanding the behaviour of time in *Loki*. It allows the viewer to gain insight into how time would behave if it was not externally restricted by the TVA. From this point onwards, it is no longer possible to depict time as a singular, isolated, and continuous timeline. Rather, there are infinite possibilities in the future, all of which can be realised. As mentioned before, such an asymmetry where the past is fixed but the future remains subject to present decisions can only be found in the growing block theory. According to this view, any action in the present can influence future but not past events. Therefore, I would argue that the nature of time in the series can be illuminated through identifying Kang as the focal character. The proposed main characters Loki and Sylvie constantly travel through time and space, hindering a clear location of the series' present. However, if the Sacred Timeline represents the events that Kang has lived through, the threshold marks his present. With every moment that passes, a slice of present is added to the timeline he has experienced, which reflects the dogmas of the growing block theory. Any moment later in time represents the character's future, which cannot be known until it arrives and can still be modified through present actions. In other words, the 'end of time' is not in the future but is Kang's present and thus signifies the end of his recollection of the past. This explains the imagery of the threshold and Kang's evident change in demeanour since he was not afraid before crossing it, implying that the past was fixed and as he was invincible until this moment. After the threshold, there was no insurance that he would remain alive because the future paths had not yet been determined and become past.

One validation of this argument can be found in the graphic representation of the void in the fifth episode. Here, Miss Minutes explains the concept of the void and the end of time with the aid of a timeline branching off into a rainbow-coloured spectrum of possible future timelines (E5 10:06). The point of branching is the void from which onward there is no clearly depicted Sacred Timeline but infinite alternatives. While the TVA justifies the undetermined branches through the Time-Keepers still 'entangling' the proper path, the depiction fits into the growing block theory if the void is accepted as the present point in time. The schematic graph represents the growing block theory as it corresponds to simplified visualisations I have presented in this thesis, for instance the indeterministic variant by Hofer. This asymmetry is furthermore referred to when Sylvie attempts to travel beyond the void because Renslayer deems such a travel "impossible. There's nothing for the TemPad to lock onto, no destination" (E5 10:28-

10:32). It is consequently simple to travel back in time, but the future cannot be reached because it does not yet exist. As there are numerous possible timelines, there is no clear destination for the time traveller. This scene moreover comments on the ‘no-destination objection’ (Wasserman 39), which criticises presentism based on the inexistence of the moment in time the traveller arrives at. Since this objection is only relevant for travel beyond the void, there indeed seems to be an asymmetry between the past and the future. In a presentist universe, the TemPad could neither lock onto the past nor the future, making time travel in *Loki* impossible if this logic is followed. To summarise, the past is static and immutable, but the future is open and influenced by every action carried out in the present. Given that not even the powerful villain Kang can confine the future timelines, it appears as if the future is naturally indetermined. Combined with the argument before, that the visualisations in *Loki* always contain at least the past moments in time, the series seems to take place in a universe where time behaves like a growing block.



Graph 7: Schematic visualisation of the Sacred Timeline including the void (adapted from E5 10:06)

At the end of the first season, Sylvie takes revenge on the TVA and its founder by stabbing Kang when he is no longer capable of predicting her attacks (E6 35:52). But in contrast to generic final episodes where villains are finally defeated, this scene leaves the viewer feeling uncomfortable rather than delighted. The soundtrack is sombre rather than cheerful, there is no further dialogue within the scene and the viewer is left with a number of questions, wondering if this decision was the right one. The final frames in the citadel show Kang’s body sitting in his chair in front of five round windows while the camera slowly zooms in and changes from a low to a high angle. From this new perspective of the windows, the viewer can see the

immediate repercussions of Sylvie’s actions for the Sacred Timeline. The singular white line of the Sacred Timeline branches on several points and keeps on splitting and fraying in white, red and blue lines (E6 36:59). The crackling sound increases in volume and intensity, resembling the sound of glass breaking as if to audially represent the separate timelines breaking free from their confines. Within a few moments, the citadel at the end of time is surrounded by such a multitude of singular lines that the Sacred Timeline can no longer be visually distinguished, signalling the end of its superiority and the renaissance of the multiverse (E6 37:11).



Graph 8: Schematic visualisation of the branching of the Sacred Timeline (adapted from E6 36:58)

Despite centring around the concept of the multiverse, it is rarely addressed in the series except for its impending danger and in the final episode where all the possible alternative universes break free from the isolated Sacred Timeline. However, the branches are still growing and the multiverse has not yet retained its natural form, which is why it is impossible to state how it truly behaves or can be visualised. In other words, it is evident that time in *Loki* is branching and not linear even though the TVA propagates such a behaviour. But the exact behaviour of the multiverse is inconclusive. In the context of the Marvel Comics, the multiverse is represented in various forms but typically portrayed as eternalist, i.e., all alternative universes always exist and are simply found but not created through time travel. Kang’s description of the timelines being “stacked on top of” (E6 20:58-21:02) each other and thus existing independently can be applied to this view. To illustrate this description, the scene features three exemplary universes that co-exist without interacting or branching. Nonetheless, such

behaviour cannot be verified on account of the series alone. In *Loki*, the multiverse is mainly depicted as timelines branching and growing from the Sacred Timeline. Eternalistically, the branches would not be created through nexus events but already exist, which is why I argue against this as the show's nature of time even though in its original state the multiverse might consist of independent, always existent timelines. The depiction follows a different sub-theory of branching time, according to which a new branch is created if an event occurs that was not originally meant to happen. But as the portrayal of branching time in *Loki* excludes time travel as necessary cause of branching, it cannot easily be attributed to one conceptualisation. Here, the vast number of Loki variants encountered in the series and Kang's proclaimed millions of lifetimes indicate that everything that *can* happen *does* happen on some timeline like in Everett's many-worlds interpretation. Consequently, the concept of branching time in the show is visually represented and the focal point of the plot, but while it adheres to rules that seem to a degree coherent within the series, they do not exclusively correspond with one theory. For the sake of the plot and character development, time travel along a branch is possible and nexus events which were not supposed to happen as dictated by Kang cause the timeline to branch. Throughout the series, several visualisations explicitly depict branching (see for example E6 28:43). Therefore, I suggest a concept of branching time, according to which timelines split at points of divergences and which allows for unrestricted time travel to the past of one's own or alternative timelines. Time travel to the future, in contrast, is impossible and this fact, in combination with the graphic timelines dynamically growing, indicates a behaviour of time like a growing block. This behaviour applies not only to one timeline but the entire multiverse as well.

A multiverse according to the growing block theory is not explicitly addressed in the Marvel Universe but particularly the Marvel Comics vary in their portrayal of the multiverse. The behaviour of time presented in *Loki* is therefore not fully incompatible with the MU, especially since the growing block theory and eternalism share their views on the behaviour of the past. Since many time travel stories along a single timeline are based on eternalism or time as a growing block in the Marvel Comics, they could be applied to both theories as long as the destination lies in the past. A story explained through eternalism would be identical to one based on the growing block theory since the travels would only differ if the destination was in the future. Alternatively, the multiverse in *Loki* could be eternalist but is only depicted as growing because it requires time to re-emerge in its static, never-ending form. However, I doubt that interpretation based on the asymmetry of past and future and because of the explicitly visualised

branching at points of divergences, which is why I have proposed the growing block multiverse. Moreover, the concepts of time in the MCU also fit this explanation to a degree. The Avengers' time heist in *Endgame* creates branches and therefore follows the traditional rules of time travel in branching time, but in *Infinity War* the time stone is utilised to analyse the infinite number of possible futures. Such an act hints at an open, indetermined future and thus favours the growing block theory or presentism rather than eternalism. As the Avengers travel into the past, their time heist can be attributed to both eternalism and the growing block theory, so that their portrayals of time travel only differ in the necessity of branching.

Generally, it should be addressed that the series introduces the multiverse in the MCU to the viewer and does not declare to represent the multiverse of the Marvel Comics. The comparison allows some insight into changes in the show that are essential for the plot, for instance the rule that time travel causes no branches even in a non-eternalist universe. Nonetheless, the show signals that it is aware of its origins in the Marvel Comic through its opening credits portraying the comic characters. Additionally, Mobius subtly refers to his alternative character and the TVA in the Marvel Comics. The organisation is first introduced in *Thor #371*, in which its agent Justice Peace appears in Thor's present. To protect the peace of the universe, he travels through time with the aid of a machine that resembles a Jet ski. Throughout *Loki*, Mobius addresses his love for Jet skis, even stating that maybe in the alternative life before the TVA he "had a jet ski" (E4 34:19-34:21), hinting that the crucial TVA agent in the series might be a variant of the comic's time-travelling justice guard.

As indicated before, this analysis is not exhaustive and does not claim to be conclusive, because important details are not explored in the series. For example, the cliff-hanger of the first season reveals that the minutemen cannot remember Loki and that Kang is now the overt commander of the TVA. While the questions that arise from this final frame are important for creating suspense and increase interest in the second season, their answers would be beneficial in analysing how time behaves. If the nature of time indeed follows the rules of the growing block theory, such a change of the past would be impossible. Moreover, it must also be noted that while the arguments for the growing block theory outweigh other theories' claims, the behaviour of time is not fully consistent with any theory or with any time concept in the Marvel Universe. Nonetheless, I have argued for a nature of time that behaves like a growing block and is based on a singular, fixed past and infinite alternative future branches. The concept is

evidently branching even though the series utilises the organisation of the Time Variance Authority as an unreliable narrator to present time as eternalist.

### 3.4 Determinism and free will

The prior analysis of the time concept portrayed in *Loki* is not only relevant for understanding time travel and the multiverse in the Marvel Cinematic Universe but also for illuminating the debate on free will in the series. Depending on the underlying time conception, a character's timeline is either fully, partly or not determined and thus allows for a certain degree of agency. In *Loki*, the debate of whether characters truly have free will is paramount for the plot and addressed several times by the TVA. However, as shown before, the TVA agents have been identified as unreliable narrators and their explanations of determinism and free will must consequently be reflected on critically. In the pilot episode, for instance, Loki screams at Ravonna Renslayer and two minutemen that "you ridiculous bureaucrats will not dictate how my story ends" (E1 17:40-17:45). Without empathy as if to merely state a fact, Renslayer responds: "It's not your story, Mr. Laufeyson. It never was" (E1 17:45-17:49). Similarly, Mobius discusses Loki's character in the second episode, addressing the possibility that he is not simply the mischievous, untrustworthy villain they all believe him to be. "Is that possible? He can change?", he asks but Renslayer again shuts down this line of argumentation immediately by claiming that any change is indeed impossible "unless the Time-Keepers decree it" (E2 14:16-14:22). These statements fit into the eternalist worldview the TVA aims to project, according to which there is one proper flow of time, and no intentional or unintentional deviations may be allowed. But the universe only appears eternalist because the multiverse is externally restricted by Kang and his Time Variance Authority. If the Sacred Timeline indeed behaved eternalistically, then the TVA itself would be redundant because no nexus events could take place. This external variation of an eternalist timeline is hence only proclaimed by Kang because it denies the characters any hope of free will so that they are less likely to resist his rule of the TVA.

As I have shown in the chapters before, the concept of time in *Loki* can best be described as a growing block multiverse with independent rules for time travel along branches. Relating this theory to the debate on determinism and free will, the past is determined but the future is open and subject to present actions. Taking the threshold as the present moment in time, any action

carried out from there onwards can affect the future path of the timeline, which is indeed depicted in the final episode. Until then, the flow of time was fixed and restricted by Kang but in this present the characters were finally able to take agency. For agency, it is necessary that the characters have alternative possibilities, all of which can be realised, and self-control to freely choose one option. After the threshold, these conditions are fulfilled because the TVA no longer restricts their abilities to realise their chosen option. However, the matter is complicated by the fact that all actions of free will in the past are stopped by the TVA. It remains unclear if they can be carried out in a non-restricted multiverse. Judging from their own present, Loki and Sylvie should always have free will but if the threshold is assumed to be Kang's present, agency is only possible after crossing it. This is emphasised in the final episode when Sylvie claims that they have arrived at the citadel at the end of time because they "broke out of your little game. That's how we got here", to which Kang replies: "No, wrong. Every step you took to get here, Lamentis, The Void, I paved the road. You ... You just walked down it" (E6 15:38-16:02). In other words, free will was an illusion projected by Kang but after the threshold, the ability to choose an alternative action is real.

Free will exists even before the threshold because Kang seemed to have captured Alioth, ended the multiversal war, and isolated his timeline through his individual agency. As Ravonna Renslayer rightfully points out, in the context of the series "only one person gets free will. The one in charge" (E6 17:32-17:38). As the one who knows the past and can erase any deviation from his intended path, Kang restricts the free will of all other intradiegetic characters but his own. In doing so, he, or rather the Time-Keepers, are put on the level of a God or nature itself, making it seem as if time was naturally deterministic while it was simply determined by the actions of the TVA. This is a power he holds even after the threshold because both alternatives lead to his victory. One possibility is that Loki and Sylvie take on his role as benevolent rulers of the TVA and his "life's work continues or [they] plunge a blade in [his] chest and an infinite amount of [him] start another multiversal war" (E6 29:14-29:33). If they decide to kill Kang, a multiversal war would break out again, which would again lead to him or his variant ending it and ending "right back here anyways" (E6 29:33-35). This prediction becomes reality when Sylvie indeed defeats the villain and Loki faces the statue of Kang as ruler of the TVA (E6 40:04-40:17), implying that he remains the one in charge even after his death. However, this detail in the series hints that free will is possible but simply externally constricted, favouring the growing block theory with an indetermined future over an eternally fixed view.

The assumption that characters can technically act out of free will but are denied that right by the TVA puts the organisation's proclaimed benevolence once again into perspective. They simultaneously restrict free will and attribute the variants accountability for their nexus events, the latter of which is not possible without the agency granted by the first. In a way, this functions as a reminder that agency – for instance by Kang – should not be understood as equivalent to moral agency. Analysing time travel in *Loki* and assuming the multiverse to behave like a growing block requires that a time traveller cannot change the past. For moral agency, it is therefore relevant to consider the intentions of the characters rather than their success in changing past events for a supposed 'better'. Kang's moral agency, which is his "perceived ability to avoid doing harm to other people" (Black 295), can thus be judged in the context of the mass eradication of timelines and innocent variants. His actions are possible because he possesses the agency to carry them out but morally, they are bad. Considering Sylvie's and Loki's intentions, in contrast, is difficult and their perceived morality cannot be judged based on the series alone. They appear to resist the TVA in the name of free will for all beings but being 'Lokis', who are described as untrustworthy and mischievous in their nature, their true intentions are hidden and – in the case of Sylvie – heavily clouded by revenge. Nonetheless, it can be stated that from the threshold on the characters obtain free will and the agency to realise their intended actions because this moment in time marks the present of the growing block universe, the future of which is still undetermined. Loki's first undetermined action is to argue to spare Kang to prevent another multiversal war, thus prioritising the safety of the multiverse over personal revenge. Sylvie, on the other hand, uses her newfound agency to avenge the misery the TVA has caused her. These two contrasting actions have consequences, but as Sylvie pushes Loki through a Timedoor, only her action is realised. It is therefore probable that the second season, which will air in October 2023, focuses on the repercussions of Sylvie's actions and the burden she must therefore carry. I suspect that this second season will allow the viewer far more insight into free will and its consequences now that the multiverse has been freed and free will seems to be granted to everyone. Technically, all characters already have agency in their present time but only without the interference of the TVA can their chosen actions be carried out and influence the future. The final frame of the first season depicts the TVA as continuing their work, which is why it cannot yet be concluded if Kang's death truly led to undetermined, free will for all characters.

## 4. Conclusion

In this thesis, I have provided a literature review of eternalist, presentist, growing block and branching time theories along with their ethical implications on free will. Additionally, I have presented an overview over time conceptualisations and time travel in the Marvel Universe. This allowed me to contextualise the TV series *Loki* and to explore to what degree its depiction of time is compatible with the semiotic sphere of the Marvel Universe. My multimodal analysis of the scene containing an animated introductory video, which explains the Time Variance Authority and the behaviour of the Sacred Timeline, has shown that time in *Loki* can branch at points of divergence. These branches create a multiverse of alternative timelines and are visually portrayed as growing lines, implying that their dynamic behaviour adheres to the growing block theory. Simultaneously, one externally isolated timeline, known as the Sacred Timeline, is depicted continuously and static, indicating an eternalist nature of time for that particular timeline. However, this inconsistency can be explained with the aid of the video's context since it is artificial and simplified through the use of animation and comic-book elements. Paired with a suspiciously cheerful voice-over while the TVA violently erases entire timelines, this establishes the TVA as an unreliable narrator. The broader analysis of all six episodes of the first season has emphasised this preliminary conclusion. Here I have focused on the three interdependent topics of time travel, the behaviour of time, and determinism and free will in separate chapters to examine their further visual, auidial, and in-dialogue representation in the series. The continuous depiction of timelines as growing aids my argument for the growing block theory.

The most significant detail, however, lies in the asymmetrical behaviour of time, in which the past is treated differently from the future. While determining the present in a series which proclaims to be situated outside of time is difficult, the show features a moment in time titled the 'threshold', from which on the future is undetermined. I have therefore suggested to assume this moment as the present and have concluded that the intradiegetic universe is a multiverse of branching timelines that is heavily reliant on the growing block theory. However, the series differs in its rules of time travel from the consensus of the Marvel Comics and the MCU. Here, it is possible to travel in time without causing new branches and travel along one's own timeline, which is necessary for the Sacred Timeline to be isolated and thus crucial to the plot while aiding character development. Additionally, the series is inconsistent in its rules of time travel, with the Avengers' time heist being 'supposed' to happen and causing branches while others

are not. Nonetheless, I argue that time in *Loki* predominantly behaves like a growing block, both along one timeline and in the entire multiverse. But the representation of time contains contradictions, unique deviations, and elements of eternalism as well. The depiction of eternalist timelines can be explained through the villain Kang's aim to ensure his own victory in the multiversal war and to prevent any form of resistance. According to eternalism, all facts are fixed and there is hence no hope for resistance if the future is already determined. In theory, however, the characters in the intradiegetic universe possess free will and can determine their own future if they are not restricted in doing so through the TVA.

This suggestion of a multiverse inspired by the rules of the growing block theory is based on the first season of *Loki* and therefore limited to the publications of the Marvel Universe before and including the series. As a second season will be published later in 2023 and the multiverse continues to play a role in upcoming comic books, feature films and TV series of the Marvel franchise, this suggestion is subject to change with further explicit or visual information concerning time. For now, I argue for understanding time in the Marvel Universe as a complex matter and to take this analysis of *Loki* as a starting point for further research. This thesis has shown that the multitude of collaborators creating the Marvel publications leads to a necessary heterogeneity and that the coherence and plot of an isolated publication can be prioritised over the coherence of the greater Marvel Universe. Particularly in relation to the MCU, many questions of how time behaves remain unanswered. *Loki* attempts to tie its events into the universe of *Endgame* and other publications, but the rules of time travel are incompatible with each other and lead to a disruption in the internal logic of the MCU.

Nonetheless, this season of *Loki* is of great importance to the future of the MCU since it establishes the multiverse and ends in its re-emergence. This justifies that the multiverse, which has long played an essential role in the Marvel Comics, is only introduced in the fourth phase of the MCU and not addressed in prior feature films or TV releases. I thus find it necessary to take *Loki* as the starting point for further analysis of the multiverse and of the nature of time in the Marvel Universe in general and the MCU in particular. This analysis then aids further research into the primary materials of the MCU, which continuously grows and provides additional depiction or explanation of how time behaves. The analysis can thus be added to a growing block of information about the MU like present moments being added to a growing block of time. As phase five and six of the MCU will revolve around the multiverse and at least

one variant of Kang, future publications will show if they tie into the behaviour of time established in *Loki*, take up a time concept of the MU, or introduce a new model.

For now, I suggest the conception of time as a growing block and argue that this fits into the greater Marvel Universe, even with its individual deviations. The Marvel Universe is heterogenous and features a variation of time concepts. It contains a multiverse of stories and cannot be described with a single time theory. Many time travel stories in the MU are based on eternalism but, given that eternalist and growing block time travel to the past is identical, I believe that they can be explained with the growing block theory as well. I see great advantages in the growing block theory for the MU, which is why I deem it possible that the explanations of time are retroactively adapted to this theory. This has happened in the Marvel Comics before to justify the shift from singular to branching time and can happen again in future publications. A universe in which time behaves like a growing block means that the past cannot be changed but that the future is open. In contrast to eternalism, this provides the characters with more agency and raises the stakes since any present action can have catastrophic consequences. In contrast to presentism, on the other hand, the past remains immutable even if time travellers changed past events. As a result, the cause-and-effect chains established in the MU must stay intact and cannot be altered by, for example, a new contributor. It is thus possible that the nature of time will be explicitly addressed in the future of the MU. However, even if it is not explicitly discussed, I recommend an analysis of time based on the visualisation of timelines and the implications of time travel as I have carried out in this thesis. The results might not point to one theory exclusively but grant important insights into the specific understanding of time and where changes to related publications are necessary for the plot.

## 5. Bibliography

### Primary sources

- Avengers: Endgame*. Dir. Anthony Russo, and Joe Russo. Marvel Studios, 2019.
- Avengers: Infinity War*. Dir. Anthony Russo, and Joe Russo. Marvel Studios, 2018.
- Doctor Strange*. Dir. Scott Derrickson. Marvel Studios, 2016.
- Loki*. Dir. Kate Herron. Marvel Studios, 2021.
- Thor #371*. Ed. Craig Anderson, and Ralph Macchio. Marvel, 1986.

### Secondary sources

- Black, Jessica E. "An Introduction to the Moral Agency Scale: Individual Differences in Moral Agency and Their Relationship to Related Moral Constructs, Free Will, and Blame Attribution." *Social psychology* 47.6 (2016): 295-310.
- Clark, Vivienne, James Baker, and Eileen Lewis. *Key concepts & skills for media studies*. London: Hodder & Stoughton, 2002.
- "Comic-Book Time." *Tv tropes*, 26 Jan 2023, <https://tvtropes.org/pmwiki/pmwiki.php/Main/ComicBookTime>.
- "Comic Book Time / Marvel Universe." *Tv tropes*, 16 Jan 2023, <https://tvtropes.org/pmwiki/pmwiki.php/ComicBookTime/MarvelUniverse>.
- Cristofari, Cécile. "Time Travel as Trope in Television Series." *Time-travel television: the past from the present, the future from the past*. Ed. Sherry Ginn and Gillian I. Leitch. Lanham: Rowman and Littlefield, 2015. 27-36.
- Currie, Mark. *About Time: Narrative Fiction and the Philosophy of Time*. Edinburgh: Edinburgh UP, 2022.
- Deutsch, David, and Michael Lockwood. "The Quantum Physics of Time Travel." *Science Fiction and Philosophy*. Ed. Susan Schneider. Hoboken: Wiley, 2016. 370-383.
- "Edutainment." *Cambridge Dictionary*, 13 July 2023, <https://dictionary.cambridge.org/dictionary/english/edutainment>.
- Fraser, Emma. "'Loki': breaking down the aesthetic of the TVA." *whattowatch* 09 June 2021. Web. 13 July 2023. <https://www.whattowatch.com/features/loki-breaking-down-the-aesthetic-of-the-tva>.
- Gavaler, Chris, and Nathaniel Goldberg. "Dr. Doom's philosophy of time." *Journal of graphic novels & comics* 8.4 (2017): 321-340.
- Ginn, Sherry, and Gillian I. Leitch. "Introduction: Back and Forth and Time." *Time-travel television: the past from the present, the future from the past*. Ed. Sherry Ginn and Gillian I. Leitch. Lanham: Rowman and Littlefield, 2015. xiii-xviii.
- Hills, Matt. "Cult TV, Quality and the Role of the Episode/Programme Guide." *The Contemporary Television Series*. Ed. Michael Hammond and Lucy Mazdon. Edinburgh: Edinburgh UP, 2022. 190-206.
- Hofer, Carl. "Time and chance propensities." *The Oxford Handbook of Philosophy of Time*. Ed. Craig Callender. Oxford: Oxford UP, 2011. 68-90.

- Huemer, Michael. "Free Will and Determinism in the World of *Minority Report*." *Science Fiction and Philosophy*. Ed. Susan Schneider. Hoboken: Wiley, 2016. 104-113.
- Jowett, Lorna, and David Simmons. "Time on TV: Afterword." *Time on TV: narrative time, time travel and time travellers in popular television culture*. Ed. Lorna Jowett, Kevin Lee Robinson, and David Simmons. London: I.B. Taurus, 2016. 157-166.
- Jowett, Lorna, Kevin Lee Robinson, and David Simmons. "Timey Wimey Stuff: Introduction to Time on TV." *Time on TV: narrative time, time travel and time travellers in popular television culture*. Ed. Lorna Jowett, Kevin Lee Robinson, and David Simmons. London: I.B. Taurus, 2016. 1-14.
- Larsen, Kristine. "The Impossible Girl and the New World: Televisual Representations of the Scientific Possibilities and paradoxes of Time Travel." *Time-travel television: the past from the present, the future from the past*. Ed. Sherry Ginn and Gillian I. Leitch. Lanham: Rowman and Littlefield, 2015. 213-222.
- Lewis, David. "The Paradoxes of Time Travel." *Science Fiction and Philosophy*. Ed. Susan Schneider. Hoboken: Wiley, 2016. 357-369.
- Miller, Kristie. "The new growing block theory vs presentism." *An Interdisciplinary Journal of Philosophy* 61.3 (2018): 223-251.
- Mozersky, M. Joshua. "Presentism." *The Oxford Handbook of Philosophy of Time*. Ed. Craig Callender. Oxford: Oxford UP, 2011. 122-144.
- Nahin, Paul J. *Time machines: time travel in physics, metaphysics, and science fiction*. New York: Springer, 1999.
- Ninan, Dilip. "Relativism and Two Kinds of Branching Time." *Pacific Philosophical Quarterly* [online]. <https://onlinelibrary-wiley-com.uaccess.univie.ac.at/doi/full/10.1111/papq.12418>.
- Perovic, Katarina. "Three Varieties of Growing Block Theory." *Erkenntnis* 86.3 (2021): 623-645.
- Powell, Helen. *Stop the Clocks! Time and Narrative in Cinema*. London: I.B. Tauris, 2012.
- Power, Sean Enda. *Philosophy of Time and Perceptual Experience*. London: Taylor and Francis, 2018.
- . *Philosophy of Time. A contemporary introduction*. New York: Routledge, 2021.
- Ricoeur, Paul. *Time and narrative: Volume 2*. Chicago/London: The U of Chicago P, 1985.
- . *Time and narrative: Volume 3*. Chicago/London: The U of Chicago P, 1988.
- Rovelli, Carlo. "Neither Presentism nor Eternalism." *Foundations of Physics* 49 (2019): 1325-1335.
- "Rules of Time-Travel." *Marvel [database]*, 17 Jan 2023, [https://marvel.fandom.com/wiki/Multiverse#Rules\\_of\\_Time-Travel](https://marvel.fandom.com/wiki/Multiverse#Rules_of_Time-Travel).
- Serra, Marcello. "Historical and Mythical Time in the Marvel and DC Series." *Journal of popular culture* 49.3 (2016): 646-659.
- Stoilas, Helen. "*Loki*'s production designer on the Modernist inspirations behind the show's stunning visuals." *The Art Newspaper* 10 July 2021. Web. 08 July 2023. <https://www.theartnewspaper.com/2021/07/10/lokis-production-designer-on-the-modernist-inspiration-behind-the-shows-stunning-visuals>.
- "Time Heist." *Marvel Cinematic Universe Wiki*, 7 Nov 2022, [https://marvelcinematicuniverse.fandom.com/wiki/Time\\_Heist](https://marvelcinematicuniverse.fandom.com/wiki/Time_Heist).

- “Time Skip.” *Tv tropes*, 16 Jan 2023,  
<https://tvtropes.org/pmwiki/pmwiki.php/Main/TimeSkip>.
- “Time Stone.” *Marvel Cinematic Universe Wiki*, 9 Nov 2022,  
[https://marvelcinematicuniverse.fandom.com/wiki/Time\\_Stone](https://marvelcinematicuniverse.fandom.com/wiki/Time_Stone).
- Thomas, Emily. “The Roots of C. D. Broad’s Growing Block Theory of Time.” *Mind* 128.510 (2019): 527-549.
- Vanacker, Rebecca. “Loki Actress Explains Why Miss Minutes Has an Accent.” *Screenrant*. 18 Oct 2021. Web. 03 July 2023. <https://screenrant.com/loki-show-miss-minutes-accent-explained-tara-strong/>.
- Viebahn, Emanuel. “Presentism, eternalism and where things are located.” *Synthese* 197.7 (2020): 2963-2974.
- Wasserman, Ryan. *Paradoxes of Time Travel*. Oxford: Oxford UP, 2018.
- Wittenberg, David. *Time Travel: The Popular Philosophy of Narrative*. New York: Fordham UP, 2016.
- Wolk, Douglas. *All of the Marvels. A Journey to the Ends of the Biggest Story Ever Told*, eBook. Penguin Press, 2021.

## 6. Appendix

### 6.1 Abstract in English

A narrative without the experience of time is impossible but this experience is mainly implicit in novels, films, TV shows or other publications. However, nowadays the number of publications that make time explicit rises, particularly through the trope of time travel. This trope can also be found in the Marvel Universe (MU), a superhero franchise containing more than 500,000 pages of comics and 32 feature films among other releases. The characters in the MU have travelled through time since 1961 but the conceptions of how time behaves have shifted in the last 60 years and are often inconsistent with other publications. The TV series *Loki* (2021), produced by Marvel Studios and directed by Kate Herron, spans six episodes, which focus on the behaviour of timelines, time travel, and the multiverse within the MU. This thesis therefore analyses the underlying nature of time in a multimodal analysis of an animated introduction video to the multiverse and in a selected analysis. The latter concerns the interdependent topics of time travel, the behaviour of time, and their implications on the characters' agency. Both parts of the analysis relate the series to the theories of eternalism, presentism, time as a growing block, and branching time. Based on the visualisation of timelines as dynamically growing and branching, I suggest a multiverse that behaves like a growing block. This is emphasised by the depicted asymmetry in time travel, through which characters can only travel to the past but not the future. However, *Loki's* rules of time travel diverge from rules established in the Marvel Universe for the sake of the plot and character development, which is why the exact underlying theory cannot be concluded and further research into future publications of the MU is necessary.

## 6.2 Abstract in German

Ohne die Erfahrung von Zeit ist keine Erzählung möglich, aber zumeist wird diese Erfahrung in Büchern, Filmen, Fernsehserien oder anderen Veröffentlichungen nur implizit spürbar. Dennoch nimmt die Anzahl an Veröffentlichungen stetig zu, die diese Erfahrung auch explizit machen, vor allem durch die Möglichkeit des Zeitreisens. Auch im sogenannten Marvel Universum (MU), einem Superhelden-Franchise mit mehr als 500.000 Seiten an Comics und 32 Kinofilmen, ist diese Möglichkeit zu finden. Bereits seit 1961 reisen die Marvel Charaktere durch die Zeit, doch die Zeitkonzeptionen des MU haben sich im Laufe der letzten 60 Jahre verändert und sind auch untereinander nicht notwendig konsistent. In den sechs Episoden der Fernsehserie *Loki* (2021), die von Marvel Studios unter der Regie von Kate Herron produziert wurde, werden das Verhalten von Zeitstrahlen, Zeitreisen und das Multiversum des MU besonders deutlich. Diese Masterarbeit analysiert daher die Natur der Zeit, die der Serie zugrunde liegt, in einer multimodalen Analyse eines animierten Videos, das die Zuschauenden in das Multiversum einführt, und einer selektiven Analyse. Die letztere untersucht die voneinander abhängigen Themen des Zeitreisens, der Zeitkonzeption, und der Frage, ob die Charaktere einen freien Willen besitzen können. Beide Teile der Analyse beziehen sich auf die Zeitkonzeptionen des Eternalismus, Präsentismus, der Zeit als wachsenden Blockes, und des Multiversums. Basierend auf der Visualisierung der Zeitstrahlen als dynamisch, wachsend und verzweigend schlage ich ein Multiversum vor, in dem sich Zeit wie ein wachsender Block verhält. Unterstützt wird diese These durch die Asymmetrie im Zeitreisen, bei der Charaktere nur in die Vergangenheit, aber nicht in die Zukunft reisen können. Jedoch weichen die Regeln des Zeitreisens in *Loki* von bestehenden Regeln im MU ab, um den Inhalt der Serie und eine positive Entwicklung der Charaktere zu ermöglichen. Dementsprechend kann nicht auf die genaue Theorie der Zeit geschlossen werden und somit ist noch weitere Erforschung der zukünftigen Veröffentlichungen des MU notwendig.