Herman's Polychronic Narration: An Analysis of Selected Christopher Nolan Films

H de Clerk

orcid.org/0009-0000-3827-5833

Dissertation accepted in fulfilment of the requirements for the degree *Master of Arts in English* at the North-West University

Supervisor: Prof I Bekker

Graduation: July 2025

ACKNOWLEDGEMENTS

I would like to first thank my supportive and loving fiancée, who stood by me not only throughout my research but also throughout my entire undergraduate and postgraduate career. Thank you for believing in me, for listening to my endless rambles, and for watching these mind-bending films with me.

To my parents, I extend my utmost gratitude for developing and supporting my interests from early on in my life. I would never have come so far without your guidance, love, and trust.

I would also like to thank my supervisor, Prof. Ian Bekker, who trudged alongside me throughout this study. I will forever be grateful for the inspiration and knowledge you have gifted me. Thank you for listening to my crazy ideas and challenging me to always improve. Our progress meeting will always be one of my fondest memories; I could not have asked for a better mentor.

Last but certainly not least, I would like to thank my friends. Thank you for always lending an ear and encouraging me to never give up, and especially, thank you for always being ready to grab a drink when I needed it the most.

ABSTRACT

As the title suggests, this dissertation applies David Herman's theory of polychronic narration to selected Christopher Nolan films. Christopher Nolan is a modern-day auteur who pushes the boundaries of narrative, specifically in terms of the deformation of time. Due to Nolan's radical manipulation of time, thus creating a temporally fractured storyworld, traditional temporal theories such as Genette's are not sufficient in analysing Nolan's unique use of time, especially when combined with filmic techniques. Therefore, this study is based on the assumption that a theory such as Herman's theory of polychronic narration is needed to examine and understand time's deformation in Nolan's films.

Four films of varying temporal complexity —*Dunkirk*, *Interstellar*, *Memento*, and *Tenet* —were selected for analysis to confirm this study's hypothesis. *Dunkirk* and *Memento's* temporal deformation exhibited forms of polychronic narration that precisely fit Herman's theory. While analysing *Dunkirk,* for example, it was possible to represent an inexactly coded, multiply-ordered polychronic narrative on a (re)constructed timeline, thus allowing for a better understanding of indeterminacy in the film. Unfortunately, the applicability of Herman's theory began to falter once *Interstellar* and *Tenet* were put under the spotlight. True, the application of Herman's theory of polychronic narration enabled one to examine indeterminate events within these films; however, unlike with *Memento* and *Dunkirk*, these indeterminate events were not as easily explained by Herman's theory. With regards to *Interstellar,* Herman's method of documenting indeterminate events clearly does not take into consideration such radically inexact events as found in *Interstellar*. Therefore, adjustments needed to be made in order to represent these instances on a (re)constructed timeline. Once these adjustments were made, the theory of polychronic narration could be fully applied to *Interstellar*. The same cannot be said, however, for *Tenet*. In *Tenet,* it was seen that Christopher Nolan pushed temporal deformation as far as he could. This resulted in the theory of polychronic narration being able to only partially analyse and explain indeterminacy within the film. Herman's theory did not possess all the necessary tools to fully apply polychronic narration to *Tenet*, nor could a (re)constructed timeline using Herman's theory be developed.

This study concluded that Herman's theory of polychronic narration can be, in many cases, applied to Christopher Nolan's films and that it is the most optimal theory to examine and explain inexact events – likewise, traditional theories like Genette's need only be slightly 'updated' to understand Nolan's more simplistic films. However, despite Herman's theory being best suited to analyse time's deformation in Nolan's films, it was still apparent that it lacks the ability to fully examine Nolan's more extreme temporally-deformed films. Therefore, this dissertation, as a result of shedding further light on the role of time-formation in Nolan's films, adds some further developments to Herman's theory in order to accommodate the more extreme instances.

Table of Contents

Chapter 1: Introduction 1
1.1 Brief Contextualisation 1
1.2 Theoretical Framework 2
1.3 Film as a medium for narrative time analysis 4
1.4 Research Questions 6
1.5 Research Aims 6
1.6 Thesis Statement 6
1.7 Methodology (Analytical Framework) 6
1.8 Provisional Chapter Division 8
1.9 Contribution of the Study 8
1.10 Ethical Considerations 9
Chapter 2: Christopher Nolan 10
2.1 The Rise of a 21st-century Auteur of Cinema 10
2.2 The style of Christopher Nolan 17
2.3 Critique of Christopher Nolan 22
Chapter 3: Theoretical foundation 26
3.1 The Study of Film 27
3.1.1 The history of filmmaking 27
3.1.2 Auteur Theory 33
3.1.3 Narrative in Film 35
3.2 The Study of Narrative 40
3.2.1 The History of Narratology and Narrative Studies 40
3.3 The Study of Time in Narrative and Film 49
3.3.1 The Theory of Narrative Time 49
3.3.1.1 Genette's Theory of Narrative Discourse's Use of Time. 52
3.3.1.2 David Herman 64
Chapter 4: The Analysis of Polychronic Narration in Selected Christopher Nolan Films 86
4.1 Dunkirk 87
4.2 Interstellar 102
4.3 Memento 120
4.4 Tenet 132
Chapter 5: Conclusion 156
BIBLIOGRAPHY 160

List Of Figures

Figure 1: Herman's Classification of The Order in Which Events Are Presented in Egoyan's *The Sweet Hereafter*............ 75

Figure 2: Herman's Construction of The Storyworld Chronology for Egoyan's *The Sweet Hereafter* 75

Figure 3: *Dunkirk's* (Re)Constructed Storyworld Timeline............ 94

Figure 4: The Order of Events Presented to The Viewer 94

Figure 5: *Interstellar's* (Re)Constructed Storyworld Timeline............ 110

Figure 6: Order of Events Presented to The Viewer............ 111

Figure 7: Reconstruction Showing Simultaneity of Events in *Interstellar*............ 111

Figure 8: Cooper in The Black Hole Where He Interacts With The Past............ 118

Figure 9: *Memento's* Reconstructed Timeline............ 127

Figure 10: Order of Events Presented to The Viewer............ 127

Figure 11:Example of *Tenet's* Temporal Structure and The Characters' Movement Through Time. 145

Figure 12: The Inversion Machine 147

Figure 13: Sator Holding Kat Hostage in The Future (the blue section), Seen From The Red-sided Perspective............ 148

Figure 14: Sator's Perspective (the blue side), Interrogating The Forward Moving Protagonist (the red side) 149

Figure 15: The Temporal Pincer Movement at Stalks-12 151

Figure 16: *Tenet's* Intricate Temporal Puzzle 155

CHAPTER 1: INTRODUCTION

1.1 Brief Contextualisation

Christopher Nolan is a British-born director who is most well-known for blockbuster films such as *The Dark Knight* (2008), *Inception* (2010), *Interstellar* (2014) and, at the time of writing, *Oppenheimer* (2023). He has been nominated for 5 Academy Awards (Oscars)[1] and has won and been nominated for multiple others[2]. His directorial work has generated a fair amount of recent popular and academic interest, with a couple of book-length treatments appearing since 2012 (McGowan, 2012; Furby & Joy, 2015; Eberl & Dunn, 2017; Mooney, 2018; Joy, 2020; Goh, 2021; Nathan, 2022). In a recent book-length treatment, Nathan (2022:4) describes his work in the following terms:

> Christopher Nolan doesn't make sense. And that is exactly how he likes it. In twenty-three years and through twelve films, he has defied the law of Hollywood by creating startling, original genre pieces that have revelled in their own complexity, confounding every maxim by which the studios hope to appeal to the widest audience. And yet he does that too. Cinemas fill on the possibility of the next Nolan film.

One of the persistent themes of this popular, albeit original and artistic, director is time; and its potential puzzle-like structure[3] as well as the relationship between time and other motifs such as memory, trauma, causality and ontological insecurity. Thus, by way of example, in one of his earliest works, *Memento* (2000), we see the world through the eyes of the main character who suffers from short-term memory loss; his main goal in the film is to avenge his wife's murder, but his condition hinders his ability to achieve this goal and creates a fractured relationship (for him and the audience) with his own immediate past. *Interstellar* (2014) features a man who attempts to save a dying earth by finding a new home planet in outer space but, in the process, encounters the complexity of the universe in terms of its ability to place people on different time trajectories; in the process, he is able to inhabit his own past. The film *Tenet* (2020), on the other hand, posits a form of technology that allows for the present to be moulded by the past *and* the future simultaneously.

While the non-linear and puzzle-like feature of time in Nolan's film is a common reference point for commentary on and for the analysis of his films, this feature of his oeuvre has not, as yet, received a sustained and focussed treatment. Therefore, a gap exists that centres around this need to provide a theoretically informed analysis of the use – and different forms – of time in his films.

---

[1] Best Original Screenplay (*Memento,* (2001); *Inception,* (2010) Best Picture (*Inception,* (2010); *Dunkirk,* (2017), and Best Director for *Dunkirk* (2017).

[2] See the Wikipedia entry on Christopher Nolan: accessed on 25 July 2023.

[3] "A single Christopher Nolan film is a puzzle" (Brooker 2015: xi).

1.2 Theoretical Framework

What thus essentially needs to be investigated in Nolan's films is narrative time. As is well known, time in narrative can be thought of as generally relating to the *story* vs. *discourse* relationship. When referring to the *story* of a narrative, one means the represented actions or events. The term 'story' can be thought of as mimetic or classical and must follow the rules of "chronological and spatial order," which follow "natural laws": certain events, such as death, only happen once; time is the succession of one day after another, agents can only occupy one spatial coordinate at a time, etc. (Puckett, 2016:6). According to Puckett (2016:6), it can therefore be claimed that those narratives that follow an ideal chronological order or "natural chronology" contain "story-time". However, *discourse* itself does not need to follow these same rules in as much as it is the *representation* of these events and actions. *Discourse* has the ability to utilise the story and manipulate its component events and actions and represent them in a comparatively complex manner. Through *discourse*, time can be expanded, contracted, and used as a means to flash forward or backwards in ('real') time. It is through such a use of the difference between *story* and *discourse* that a narrative is able to create tension (Puckett, 2016:6). Having understood narrative as represented events, one predominant figure comes to mind who has contributed from the beginning to narrative time analysis: Aristotle.

In Aristotle's *Poetics,* there is a focus on the *muthos* (plot) of tragedy. To elaborate on this, Puckett (2016:24) articulates Aristotle's claim of plot in tragedy as "the aesthetic arrangement of actions that took place in a real or an imagined time into an ordered and organic form – beginning, middle, and end". This is very similar to the distinction made between *story* and *discourse*; in fact, Puckett (2016:24) acknowledges this as maybe the earliest version of this distinction. For Aristotle, a tragedy contains a "structured, coherent representation of an event or series of events" that has a beginning (that which is not necessarily after anything else but has something after it), a middle (that naturally has something before it, after it and after that) and an end (which is naturally after something but has nothing after it), therefore, containing a plot where beginning and end cannot be placed in any other sequence than the one described above (Puckett, 2016:25). Considering this information, it is clear that Aristotle is stating that tragedy must contain "story-time"; meaning, a "unity of time" is present and therefore, the plot follows what has been characterized earlier as a "natural" chronological structure (ABC). From a modern perspective, it can be said that an Aristotelian tragedy's *story* and *discourse* relationship is a fairly simple one: the events and actions (*story*) are ordered in a strictly logical fashion without any temporal or spatial deformities (*discourse*)[4]. This particular *story* vs. *discourse* relationship can be considered to be the most elementary form of narrative time.

[4] As will be seen, Nolan deviates heavily from this structure.

Genette's (1972) theory of anachronic time, and possibly that of Deleuze(1986; 1989)[5], can be considered as focusing in particular on the second form of narrative time, namely, one that does not follow a "natural" chronological order (CAD). Genette, in particular, is well-known for his systematised ideas on time, employing three analytical categories: order, duration and frequency (Scheffel *et al.*, 2013:5). By utilising these temporal techniques, a writer is able to employ different narrative representations not associated with normal chronological order, duration and frequency. Genette refers to these digressions between *story* and *discourse* as "anachronies" (Scheffel *et al.*, 2013:5).

Order is how the author/director has decided to represent the events and actions of the story on a timeline. A narrative may incorporate prolepsis (flash-forward) and analepsis[6] (flashback); these are referred to as different kinds of anachrony (Mambrol, 2016). By deviating from the 'natural' order of events, a narrative is able to jumble a reader/viewer's notion of earlier or later. Duration relates to how the author/director has chosen the rhythm at which certain events are portrayed. There are four rhythms or speeds at which a narrative can represent events: ellipsis (infinitely rapid), summary (relatively rapid), scene (relatively slow) and descriptive (no progress in the story) (Mambrol, 2016). Deformation of duration is referred to as anisochrony (Scheffel *et al.*, 2013:5). Finally, frequency is, simply put, the number of times a narrative represents an event or action (Mambrol, 2016). According to Scheffel *et al.* (2013:5), Genette distinguishes between three uses of frequency: singulative (an event being represented only once), repetitive (an event being represented more than once) and iterative (an event being represented multiple times).[7] Collectively these various anachronies constitute a second form of narrative time focussed primarily on presenting events and actions in an anti-chronological manner. Considering this, it would not be wrong to attempt to analyse Nolan's films using Genettian theory; however, as previously mentioned, Nolan takes temporal irrationalities to such an extreme that a supplementary approach is still required.

For an understanding of the third form or 'level' of narrative time – the form that I believe Nolan's films to be representative of - Herman's theory of polychronic narration needs to be briefly discussed. Herman's theory could be considered an extension of Genette's theory of temporal anachronies, as presented above. This is because, in Genette's explanation of achronic time in narratives, he admits that there are certain events that cannot be placed on a timeline and which he refers to as "timelessness" (Herman, 2002:218-219). Herman (2004:212), however, claims that these events are not examples of achrony but are rather indicative of a so-called "polychronic" style of narration. Polychronic narration means a text having events that are

---

[5] Another theorist that deserves to be mentioned with regard to temporality is Paul Ricoeur. Ricoeur's *Time and Narrative* (1984-88) centres around the human experience of time (cosmological vs. phenomenological time) and Ricoeur believes the narrative model to be the best representation of this "human time" (Atkins, 2023). I mention Ricoeur's work in this section as an acknowledgement of his contribution to narrative time analysis. However, given their tendency towards the theoretical and philosophical at the expense of the analytical, his theories do not play a central role in investigating temporality in this study.

[6] Lothe (2002:55) branches out by explaining that there are three types of analepsis: external, internal, and mixed.

[7] For a narrative to be considered iterative, the event(s) being repeated must be shown several times throughout the narrative, not only two or three times. For example, the film *The Edge of Tomorrow* (2014), revolves around a protagonist who is trapped in a 'time-loop', repeating the same day multiple times throughout the narrative.

either earlier, later; or, most importantly, *indeterminate*; 'indeterminate' subsuming those events that Genette classified as timeless or, in Herman's words, events which are difficult or even impossible to assign to a fixed or even fixable position along a timeline (Herman, 2004:212).

In short, polychronic narration is complex and will be further elaborated on and explained in later chapters in this dissertation[8]. However, it can clearly be seen that the notion of polychronic narration provides an opening for new ways of exploring the use of temporal deformations in narratives. Genette's bald description of certain events as being timeless does not sufficiently recognise the complex nature of these representations and how they contribute to the construction of certain narratives. This is particularly true, I would claim, of Christopher Nolan's films.

1.3 Film as a medium for narrative time analysis

Having justified and outlined the main proposed theoretical framework, it is now necessary to mention why it is relevant to the analysis of time in *film* – and the proposed analysis of time in Christopher Nolan's films in particular. Film has become a predominant way in which people are subjected to narratives. It is, therefore, vital that it is held to the same critical level as novels and other traditional (narrative) genres. The history of film and its rise in literary criticism is vast; therefore, only a few considerations that pertain directly to this study will be touched on here.

Seymour Chatman is a theorist who must be recognised when discussing film analysis and the *story* vs. *discourse* relationship in particular. In his book *Story and Discourse* (1978), Chatman discusses the *story* vs. *discourse* relation in both traditional fiction *and* film, with a chapter devoted to narrative time. Furthermore, Chatman's work engages with other film theorists such as Metz (1971) in order to showcase film's equal footing with an already recognised genre of narrative analysis: fiction[9]. In fact, Chatman (1978:48-50) believes there are certain narrative elements that are better portrayed in films – e.g. film has the ability to rely heavily on verisimilitude[10] due to its visual portrayal of space, expecting the audience to understand the setting, situation and symbolic images without having to emphasise their existence. Another argument presented by Chatman is that Genette's anachronies, mentioned earlier are more applicable to film. This is because films are able to create flashbacks and flashforwards uniquely by means of "voice-overs" and visual transportation (Chatman, 1978:64)[11].

---

[8] Some of the basic analytical distinctions of polychronic time are, however, provided in the *Methodology (Analytical Framework)* sub-section below.

[9] Despite film being seen as substantively different from written texts – and said to contain its own "*language of film*" – it shares many narrative elements similar to those identified when conducting analysis on more traditional genres and media: characterisation, plot, events, time, space and repetition (Lothe 2000:8).

[10] It is interesting to note that early films did not use verisimilitude to the extent that modern cinema does. Early directors were often criticised for insulting the viewers' intelligence by presenting "shots" that were not necessary and easily assumed (Chatman, 1978:52-53).

[11] Chatman goes as far as arguing that in larger cases of analepsis and prolepsis, the terms "flashback" and "flashforward" should be media specific and applicable to the cinematic medium only (Chatman, 1978:64).

Focusing solely on cinema, Gilles Deleuze revolutionised film analysis in his extensive two-volume work on film: *Cinema 1: The Movement-Image* (1986) and *Cinema 2: The Time-Image* (1989). These two books contain a vast range of ideas and concepts that have sparked a substantial amount of related research in the fields of narrative analysis, philosophy, cultural studies, the study of ideology, etc. (Jones & Brown, 2012:2). For Deleuze, the use of *discourse* in film was of special interest as he believed it related directly to the viewer's consciousness of cinematic images. By portraying events and actions in a specific manner, films are able to initiate a "fabula [discourse] construction" in the viewers (Ashton, 2006:71). Time and space are central to many of Deleuze's concepts, with film being a perfect medium for representing the prime purpose of time and space in narratives: the image of "change" (Ashton, 2006: 88-91).

While it is acknowledged that Deleuze is a prominent figure when discussing the *story* vs. *discourse* relationship in film, his theories will not be the *primary* theoretical and analytical framework for this study. Herman's theory of polychronic narration offers reasonable complexity, a substantial secondary literature and has not been investigated to the extent Deleuze has: "[it] must be observed that a robust sense of Deleuze's concept of temporality involves bringing philosophical thought into conversation with the thought of a dizzying array of filmmakers, physicists, painters, poets, anthropologists and literary artists. In concrete terms, elaborating Deleuze's philosophy of time requires a multiplicity [of hermeneutics]" (Luzecky & Smith, 2023:2), arguably all beyond the scope of a Master's dissertation.

Further time-related narratological theories that have been applied to film include Bakhtin's notion of the chronotope (Flanigan, 2009; Harrison, 2017) as well as Genette's anachronies themselves (Braudy & Cohen, 2009; Henderson, 1983; Janisi, 2013; Zhu, 2020). These contributions to film analysis have certainly broadened the knowledge of narrative time in film; however, they have not fully accounted for the unique use of time in *certain* films. For example, both Flanigan and Harrison use Bakhtin's theory of the chronotope as a theoretical lens to study the spatiotemporal relationships of film. Yet, their analysis focuses on narratives that contain a relatively straightforward use of time. For example, Flanigan focuses on so-called adventure/action time in Hollywood films such as *Die Hard* (1988), where time's only purpose is to allow the hero to complete his goal (save hostages). Likewise, if a researcher were to use Genette's theory of anachronic time on those films that display a clearly complex use of time (such as those of Nolan), it would not suffice, especially in terms of not being able to identify and closely analyse indeterminate events, mislabelling these events as achronic instead of polychronic. It is, therefore, one of the purposes of this dissertation to show that Herman's notion of a polychronic style of narration (along with the analytical framework that he provides) will further our understanding of time deviation in film and will, in particular, be useful in the analysis of the extreme deformities of time that characterise Nolan's films. When applying his own theory, Herman (2004:237-520) uses three narratives; two novels and one film. While his

application is thus focused more on textual narratives, he does successfully analyse one film as polychronic and, therefore, opens doors to applying his theory to more films and solidifying its place in film analysis[12].

1.4 Research Questions

- How useful is Herman's theory of polychronic time for the analysis of Christopher Nolan's films?
- How exactly do Christopher Nolan's films structure time, and, in particular, how do they incorporate and make use of polychronic narration?

1.5 Research Aims

- To thoroughly investigate the applicability of Herman's theory of polychronic narration to Christopher Nolan's films.
- To understand the structuring and literary use of time in Christopher Nolan's films using Herman's theory of polychronic narration.

1.6 Thesis Statement

Christopher Nolan, as seen above, has become a prominent figure in modern film and a leading subject of study for film critics and scholars. His use of unconventional narrative time – which has explored avenues that challenge classical narrative time theories – has led to the necessity of incorporating new narrative time theories that better engage and explain his unique techniques. By using Herman's theory (and analytical framework) of polychronic narration as an investigative lens into some of Nolan's more complex films, a more comprehensible analysis of his films will be achieved.

1.7 Methodology (Analytical Framework)

Herman's theory of polychronic time provides a number of analytical categories useful for the analysis of inexact (and other polychronic) events; and should be particularly useful for unravelling the time-based, puzzle-like structure of Nolan's films. A brief summary of the main distinctions follows below. Following Herman's own examples, these will be used to understand the structuring of time in Nolan's films and to understand, in addition, the relevance of such structuring for the overall 'message' of each film:

[12] It should be noted, in addition however, that the film that Herman analyses is, arguably, a lot simpler (albeit polychronic) than Nolan's more complex films. Nolan's films can thus, in a sense, be seen as test-cases for the analytical utility of Herman's theory.

- A polychronic narrative can sequence its events (Herman uses the term 'code') in an inexact fashion or in an inherently[13] inexact fashion. Inexact sequencing refers to a narrative in which events are assumed to occur in a traditional chronological order (*story*). However, due to the type of narration and narrator, the reader/viewer perceives the events as difficult or impossible to arrange chronologically (*discourse*). For a narrative to be classified as inherently inexact, on the other hand, the indeterminateness does not stem from the focalisation of the narrator for example, but instead, the nature of time is *itself* ambiguous or unclear in the diegetic world the narrative finds itself relating to. Once the narrative has been revealed as inexact or inherently inexact, it must then be classified as being partially indeterminate or temporally multiple.

- Partially indeterminate polychronic narratives can be considered less "radical" than temporally multiple-ordered polychronic narratives (see below). This involves narratives that contain a timeline where certain events can indeed be slotted as occurring before, after, at the beginning, middle or end. However, there are also events that can be argued to have an indeterminate place on the timeline – We know that an event is after H, but not if it is before or after I. Some events can also fall within the same general timeframe, yet the order between them is uncertain. Partially ordered narratives challenge their readers/viewers to puzzle together events but hinder their efforts to construct a clear timeline.

- Temporally multiple narratives are far more radical, and some focus heavily on ontological themes. The narrative's non-linear structure is a direct result of the diegetic world itself being assumed to be polychronic (Herman, 2002:220). Such assumed temporality allows for multiple or alternative sequences to exist, leaving the viewer not only with the question, "What happened before or after what" but also "What is time, and what is its true nature?"

Having explained the various analytical categories that define a narrative as polychronic or not, Herman provides a well-articulated passage detailing the unique purpose of polychronic narration:

> [polychronic narration] forces interpreters to acknowledge that strategies for linearising and narrativising the action are just that – strategies for cognising events some of which resist (or altogether deny) chronological ordering. Again, then, polychronic narration can be described as a specialised cognitive instrument. It is a narrative device that cues interpreters to rethink the scope and limits of narrative itself – specifically, to rethink its linearising capacity viewed as both a discourse genre and a pattern of thought. (Herman, 2004:220)

[13] Herman also uses the term 'intrinsically' (Herman, 2004:219).

Christopher Nolan has produced a substantial number of films, and therefore, it is necessary to select films which contain complex narrative time and can be argued to be polychronic. As stated, Herman's theory also contains various forms of polychronic narration (e.g. partial and multiple); hence, it is important to have a wide enough selection of films ranging in their possible use of polychronic narration. For these reasons, the films under investigation are *Memento* (2002), *Interstellar* (2014), *Dunkirk* (2017), and *Tenet* (2020).

The analysis chapter commences with the film containing the impressionistically least chaotic time and working its way 'up' towards the most chaotic film. The sequence will thus be *Dunkirk (2017), Interstellar (2014), Memento (2000),* and *Tenet (2020).* This sequencing will, I believe, not only avoid bombarding the mind with complex scenarios from the start, but also allows for a system of optimal interaction with other theorists and their theories – a recurring figure will be Genette. This will showcase polychronic narration's need for integration with classical narrative time analysis.

1.8 Provisional Chapter Division

- Chapter one serves as an introduction to this study, containing contextualisation, research aims and questions, a thesis statement, an outline of the methodology and a chapter outline. This chapter also focuses on briefly introducing narrative time as a concept in narrative studies, its place in narratology and in film. Its purpose is to introduce Herman's theory of polychronic time and Christopher Nolan as a figure in film studies as well as his films as the subject of analysis.
- Chapter two focuses on discussing Nolan's career and other studies addressing his films as subjects of critical analysis.
- Chapter three is devoted to fleshing out Herman's theory and engaging with other theories and theorists of narrative time.
- Chapter 4 contains the analysis of each film, each of which will receive its own section. This is followed by Chapter 5, which provides the concluding remarks.

1.9 Contribution of the Study

This study's contribution is to further develop our knowledge of the use of narrative time in film. Christopher Nolan is a current and prominent figure in film studies and, as director, utilises time in complex and unique ways. By using Herman's theory of polychronic narration, we will not only better understand and analyse Nolan's films but also show that polychronic theories of time should exist alongside (and supplement) classical theories of time in film analysis.

1.10 Ethical Considerations

This study does not involve any interactions with individuals and is limited to textual and visual sources. As a result, there are no ethical complications to this project.

CHAPTER 2: CHRISTOPHER NOLAN

2.1 The Rise of a 21st-century Auteur of Cinema

To understand the enigma that is Christopher Nolan is like trying to understand one of his complex movies on the first watch: near to impossible. Christopher Nolan can be considered a man born to write and direct from a young age; the arts of fiction and cinema influenced him from early on. Born in London in 1970, Nolan's early life was filled with adventure and stories. His father (Brendan) was the main source of stories and influence in the creative world of cinema (Shone, 2020:25). This is due to his father's early profession (director of commercials for various large advertising companies). This would lead to many voyages to Africa and exotic lands ripe with stories to be told once his father returned[14]. His father worked with many people, such as Ridley Scott, Adrian Lyne, Huge Hudson and Alen Parker[15], whom Nolan admired and would one day act as an influence and inspiration for his work (Shone, 2020:25). His father also supported his fascination with moving images by gifting him his first 8mm camera, which Nolan used to capture his action figures in combat. He also built sets using various household objects. Nolan created his first short film using this camera. He would not stray from attempting to create realism with anything he could get his hands on. Many years later, Nolan's fascination with attempting to create expansive worlds without the use of computer-generated imagery (CGI) never dwindled – examples being engineering, camera techniques, exotic landscapes found all over the world, real explosions, etc. – and can be accredited, in addition, to a previously mentioned role model, Ridley Scott; his movie *Blade Runner* (1982), was a big influence on Nolan (Kraus, 2014).

Nolan pursued his love for narratives by studying English Literature at the University of London; here, he joined the film society, which sparked his filmmaking career (Furby and Joy, 2015:2). During his studies, Nolan's circle of inspiration and influence grew; he was subjected to the works of Dickens, Conan Doyle, Hans Zimmer (who would later be an integral part of Nolan's filmmaking magic)[16], etc. It is clear that the past masters of narrative greatly impacted Nolan's vision: e.g. H.G. Well's time-travelling machine where "buildings rise up faint and fair, and pass like dreams"[17] (Shone, 2020:23). The decision to study English literature came as no surprise to those who knew Nolan well; however, others were more hesitant as he also showed a talent for mathematics[18] – for some, including myself, the antithesis of literature – but did not pursue it as he found it bland and lacking narrative (Shone, 2020:43). Architecture, being a combination of

[14] During one of these flights, Nolan's father met his mother (Christina, a flight attendant for United Airlines). This prompted the opportunity for Nolan to obtain free tickets to go anywhere he wanted (Shone, 2020:25).
[15] Prominent filmmakers during Nolan's upbringing.
[16] A German-born film score composer known worldwide for his musical creations in Hollywood, he has produced more than eighty musical scores for film (Shelton, 2024). His contributions towards Nolan's work will be revealed in Chapter 4.
[17] Christoper Nolan's film *Inception* (2010) fits this description well.
[18] When asked about an alternative field of study, Nolan claimed architecture would be his second choice. This is because, one, his mother enjoyed it, and two, there was a narrative to be found in architecture.

mathematics and narrative, also fascinated Nolan and can be seen as greatly influencing his film-making career. When visiting architectural sites, Nolan would frequently investigate the narrative aspects of the structure, even going as far as critiquing tourist guides for not following the correct narrative sequence. An example is his visit to Angkor Wat in Cambodia, where Nolan observed a special tour reserved for VIPs, whereby they were escorted through the back of the building. Nolan believed this to be faulty, as the building was constructed to be viewed from the front following a narrative sequence; any other way would be like watching a movie in the wrong order[19] (Shone, 2020:43). Nolan notes that the narrative space in architecture, the mise-en-scene, and the varying complex geometrical shapes remind him of piecing together the individual "shots" captured during a film. He considers this architectural narrative whenever plotting his films – the first film that comes to mind is *Inception*. In fact, Filippo Brunelleschi's octagonal dome in the Santa Maria del Fiore cathedral was an inspiration for Nolan's *Inception* and is even referenced in the film (Shone, 2020:44). Shone (2020:44), regards the cathedral as "a symbol of all Nolan's films, equally impossible structures designed to entrap and ennoble their protagonists as well as beguile and bedevil their audiences".

One of the short films Nolan produced during his studies was in his dormitory at Haileybury, titled *Doodlebug* (1997). It was three minutes long and told the story of a man (Jeremy Theobald) chasing a small bug as it scurried along the floor. Once cornered, it is revealed that the bug is a miniature version of himself. With a shoe in hand, he crushes his counterpart. However, he looks over his shoulder only to see a larger version of himself about to crush him with a shoe. Thus, the doodle crushing is an endless loop[20].

Doodlebug was not the only story originating from his years living in a dormitory. The seemingly endless rows of beds intrigued Nolan: the sharing of dreams[21]. After successfully releasing the second instalment of the beloved Batman trilogy, *The Dark Knight* (2008), Nolan took on a personal project, something he had been moulding ever since his dormitory days: *Inception* was a milestone in Nolan's career – not in terms of success, as previous movies, especially the two instalments of the Batman trilogy had been more successful, but as a director that can create major blockbusters from his own stories[22] - allowing him to follow other personal projects such as *Interstellar* (2014) and *Tenet* (2020). Not only did *Interstellar* increase Nolan's renown in the film industry, but it also separated him out as a distinguished writer and philosopher of sorts (Eberl & Dunn, 2017; McGowan, 2012), with *Inception* sparking the most philosophical and critical debates thus far (Goh, 2022:43).

His first short film, *Tarantella* (1989), was filmed during his time off from studies, in Chicago, with his friend Roko Belic. As stated earlier, Nolan was fascinated by architecture, and Chicago was a playground for his imagination. The city beaming with life, long glass towers touching the sky, and a maze of underground

[19] This is quite ironic, considering he is known for creating films viewed as "out of order".
[20] It seems time, realism, and 'deformities' have always been of interest to Nolan.
[21] For those who are familiar with Nolan's work, the sharing of dreams links to one of his most popular films, *Inception*.
[22] *Interstellar* had a budget of 160M and brought in a total of 839M worldwide (Mojo, 2023).

tunnels all fascinated Nolan and fed his curious and creative mind (Shone, 2020:49). Considering this, it is no wonder Nolan was overcome with inspiration and began filming *Tarantella,* and even though he describes it as "just a surreal short, a string of images", it was still broadcast on Chicago's public television as part of a show called *Image Union* (Shone, 2020:49). They included it in the show as part of their Halloween segments and thought of *Tarantella* as sinister. Nolan would go on to use the same space in Chicago to film his career debut, *Following* (1998), and for his blockbusters *Batman Begins* (2005) and *The Dark Knight* (2008). It is clear that nothing escapes the eyes and memory of Christopher Nolan; he lives life through a camera and never forgets the things that sparked his inspiration.

Returning to his studies, Nolan was now fully committed to pursuing his filmmaking obsession. Nolan became the president of the university's Film & TV Society from 1992 to 1994 and unlocked the basement of the Bloomsbury Theatre & Studio, where many days and nights were spent pondering the art of filmmaking (Shone, 2020:51). As to be expected, the basement itself was enigmatic:

> To find the basement, you have to thread a tricky course, passing the café and going out through the foyer to the back of the building, where an ally with crates and garbage bins winds past the UCL refectory, then down several flights of stairs into the gloom of the basement, where a single red door was kept locked, until Nolan…arrived with the keys. (Shone, 2020:51)

A trend in Nolan's life begins to appear the more you follow his history, almost as if fate was at work. The unique occurrences in his life seem perfectly created for his future accomplishments: his father's work influences, stories, and cameras; his mother's free travel tickets; his surroundings and voyages that would later be used in his films and now, this enigmatic basement that perfectly suited his curious mind and was a breeding ground for his audience-perplexing films. Although Nolan was a committed student, his time was mainly spent in the basement, learning and interacting with film and its equipment[23]. Ironically, it is here, and not during a lecture, that Nolan would meet what might be considered his most important influence, namely, Jorge Luis Borges (Shone, 2020:55).

While exploring the many treasures hidden in the basement, Nolan uncovered an old student film centred around one of Borges's works. The film was titled *Funes the Memorious*; after the screening, Nolan wasted no time sprinting to the nearest bookstore and bought every Penguin edition of Borges fiction and nonfiction available[24] – Borges would later influence films such as *Memento, Inception* and *Interstellar* (Shone, 2020: 56).

[23] The film society members would gather every Wednesday during lunch to decide which movies to screen in the upstairs theatre. The profit they made would go to funding future short films.

[24] Nolan finds Borges so influential that he gives out copies as gifts and as a means to inspire aspiring filmmakers. His house is also filled with multiple editions and copies; Nolan even has one of Borges's works on him during most of the day (Shone, 2020:56).

The time had finally arrived for Nolan to begin his career-pioneering film, *Following* (1998). Nolan had completed his studies six years prior[25] and had worked a full-time job making corporate videos (Mooney, 2018:10). While walking the streets of London, Nolan began to observe the mundane life of the people around him. One such observation was that a person never kept pace with a stranger, always faster or slower (Shone, 2020:63). This resulted in Nolan becoming interested in society's construction of privacy, especially noting that once an individual is singled out in a crowd, their privacy has been broken; by simply acknowledging their separate existence you have violated their privacy. These societal observations are what led Nolan to formulating the main themes and motifs of *Following* (Eberl & Dunn, 2017:10-27).

Another personal incident in Nolan's life would lead him to concoct the plot of *Following,* which was first a short film. Nolan and his wife (Emma Tomas) were robbed during their stay in London: some CDs, personal mementoes and books were stolen. Although saddened by his lost items, Nolan was more fascinated by his kicked-in front door (Nathan, 2022:20). For Nolan, it was not the physical act of burglary that upset him. Rather, it was the violation of their privacy. The door acts as a symbol accepted by society; once it is closed and locked, it separates the individual from the social world (Nathan, 2022:20). Perplexed by this idea, Nolan created the eight-minute short film *Larceny*, shot on black-and-while 16mm film in the span of one weekend (Mooney, 2018:9). *Following* sprouted from the ideas presented in *Larceny* and was Nolan's second attempt at creating a full-length film – the first was unfortunately cancelled due to technical limitations (Mooney, 2018:10). With a budget of only $6000, and only time on weekends, Nolan and his crew set out to make movie magic[26].

It is known that Nolan has a fascination with time – more importantly, the deformation of time – and his first full-length film is no different. However, this cannot be wholly attributed to his time-altering obsession: *Following's* time deviation is as much a product of restraints placed upon the production as it is a creation of Nolan's mind (Mooney, 2018:11). Due to the tight budget, the production was heavily restricted in terms of resources and time: locations were either filmed without permits or friends and family would offer their homes and businesses. The Film Society's basement was used. The crowds of people in the film were real everyday citizens. Even the props used in the film all belonged to the crew members (Eberl & Dunn, 2017:25-26).

The real impact of their poverty of funds was the sporadic nature and style of the film. Seeing as they all were employed, they had to film on weekends, and unusually, only one day (Saturday) was reserved for shooting; Nolan would use the Sunday for editing (Eberl & Dunn, 2017:25). His goal was always to present the audience with a non-linear plot. However, he was unsure of how to do so with so little resources. After

[25] After graduating, Nolan applied to the *National Film and Television School* in England and at the *Royal College of Art* but was unfortunately rejected. This did not seem to deter Nolan, as he believed his "hands-on" experience would serve him better than academic knowledge (Mooney, 2018:9).

[26] Although Nolan had graduated, he and the old Film Society members would still make use of the university's equipment and basement (Eberl & Dunn, 2017:19).

many ideas, Nolan settled on presenting the story with a more complicated temporal structure than originally planned and only while editing did the structure begin to take form:

> You had to roll through the tape to find the thing you wanted, lay it down on another tape, so you were going down a generation, just to make your first cut – it was a nightmare. I didn't know what I was doing, I just knew that I had a structure that made a lot of sense to me, and it really took me the making of the film to figure it out. (Shone, 2020:65)

Not only did the tedious editing process spore ideas of time deformity, but the lack of time and location for filming also brought to Nolan's attention that our reality does not run chronologically (Eberl & Dunn, 2017:27). The sporadic nature of the rehearsal and shoots – the film practised and shot in different intervals – opened Nolan's eyes to the non-chronological aspect of our lives; an example being simple conversation wherein a person reflects backwards and forward in their story. According to Nathan (2022:27), "You could say that Nolan makes films in the same way we describe them to each other, rewinding to add a forgotten detail."

Thus, while the style of this film reflects the low budget, it also perfectly suits the traumatic representation of the protagonist through time deformities. The advantages of black-and-white film are the cost – which allowed Nolan to purchase one roll a week – and the ability to call it an "expressionist style" (Nathan, 2022:26). Unfortunately, the use of such film and other compromises labels the film as low-budget, which, Nolan explains, provides the movie with an empty and eerie tone that cannot be avoided (Shone, 2020:64). Instead of trying to avoid this unwanted quality, Nolan decided to use it to his advantage,[27] aiding the film's "*film noir"* aspect and its intimate quality[28] (Mooney, 2018:11).

Having finally decided how his debut would be structured, filmed and styled, Nolan would finally release his pioneering film after a year of frustrating schedules and funding challenges. The film premiered at the San Francisco Film Festival in 1998, creating a tremor of interest in the American film space, thus gaining him a theatrical release (projected in theatres for the general public to view) with *Zeitgeist Film* and bringing in a profit of $50,000[29] (Nathan, 2017:30). As is typically seen in these Hollywood stories, Nolan became an overnight success and was described as a compelling new talent by Mick LaSalle in the SFGATE magazine[30]. Fortunately, this was only the beginning of the career of what many believe is the greatest 21st-century director. Having been possessed by the notion of time and puzzles for many years, and the success of

[27] Nolan used a hand-held camera, windows for light and positioning that "suggests that the audience members are navigating these surroundings rather than existing objectively outside of them" (Mooney, 2018:11). Nolan would go on to use this technique in many of his future films, with a higher budget, of course

[28] It should be noted that Nolan's film was also influenced by Quentin Tarantino's norm-deviating film *Pulp Fiction* (1994). Nolan admired the back-and-forth structure between characters and time (Nathan, 2022:27).

[29] The film is currently considered a "cult totem for fans", whether this be fans of Nolan or cinema (Nathan, 2022:30).

[30] SFGATE, previously known as *The Gate,* holds the title of being one of the world's first large-market media sites (SFGATE, 2023).

Following, it did not take long for Nolan to begin his next *time* experiment. In truth, Nolan never stopped: while attempting to submit *Following* for the film festival, *Memento's* (2000) seed was planted.

Memento will be the last film discussed with regard to Nolan's rise as a successful director in this chapter. This is mainly because, although *Following* created ripples in the film circuit and placed Nolan in the scope of many critics, it remained an amateur, low-budget film – *Memento* was Nolan's opportunity to showcase what he could do with a 'real' budget.

After filming *Following,* Emma (his future wife) moved to Los Angeles, pursuing a job offer. Nolan, on the other hand, was not in the advantageous position he thought he would be in; itching to present his film (*Following*), Nolan was struggling to raise the funds necessary to gain the attention of the British film industry. Having been rejected multiple times and longing to be with his future wife, Nolan decided to travel to Los Angeles and try his luck in the American film circuit (Mooney, 2018:16). Once Nolan arrived in the U.S., he borrowed his family's old Honda Civic. The drive would be monotonously long (from Chicago to Los Angeles). Thus, his brother Jonathan (aka Jonah) offered to keep him company (Nathan, 2022:33). However, it was quickly realised that Jonah's offer did not completely stem from sympathy for his brother. While the open road stretched for miles, the perfect place for a wandering mind, Jonah slipped in an idea he had for a short story: a man suffering from amnesia, having memories before his life-changing accident but never able to create new ones. Like a goldfish his memory is reset after a couple of minutes, not knowing where he is or what he was just doing. Jonah knew his brother very well and was accustomed to him finding flaws in his (Jonah's) stories[31]. However, Nolan remained quiet, staring out the window before finally saying, "that's a great idea for a movie" (Nathan, 2022:35). Thus, the seed was planted to catapult Nolan's career to the next level.

Having been obsessed with the notion of time and finally able to represent that urge in a visual narrative, Nolan was impatient to commence his next puzzle film. In 1997, a year before *Following's* appearance at the *American Film Festival*, Nolan was described as a "pest", pestering his brother for the complete draft of what would be *Memento* (Shone, 2020:74). Once his brother provided Nolan with a completed draft, there was not a moment's hesitation before Nolan began writing the script. However, Nolan's tolerance for the representation of complex narrative time had risen. One morning – apparently overstimulated by caffeine – Nolan devised a plan that would make *Following*'s time structure seem simple:

> The key was not simply telling a tale about an amnesiac, but having it told by an amnesiac, the ultimate unreliable narrator. Nolan was going to put us into the protagonist's damaged head, withholding knowledge from the audience in the same way it is withheld from the protagonist, by running the story

[31] Nolan and Jonah share a close bond, especially when dealing with narratives and their creation. Jonah states that one of his earliest memories, at the age of two, was assisting Nolan with creating a stop-motion (the process of taking multiple pictures of a figure or object with slight differences in position in order to create the illusion of movement when projected) space film in their garage (Mooney, 2018:16). Later, Jonah aided Nolan with *Doodlebug* and *Following*.

> backwards. Individual scenes play as normal, but always end where the previous one began. The film would rewind toward a revelation. (Nathan, 2022:36)

Nolan had now fully immersed himself into the rabbit hole that is time. When writing *Following*, Nolan knew that he wanted a non-linear story – however, as previously discussed, this was not the only reason for the film's structure. He wrote the script chronologically, then shuffled the order. When it came to writing *Memento*, Nolan took a different approach. Instead of writing the script in chronological order, and then choosing its chaotic structure, Nolan wrote the script in the same order the audiences would watch the film (Mooney, 2018:19). This resulted in multiple rewrites in order to obtain the fragmented structure Nolan was after[32]: "there is no linear version of *Memento* that has been chopped up to produce the released feature film; that non-linear quality is woven into the film's fabric" (Mooney, 2018:19).

Having been seized by the obsessive exploration of narrative time, Nolan was able to finish the script just in time for *Following's* reveal at the festival[33]. Surprisingly, it was not at the film festival that Nolan's *Memento* was given its opportunity for the big screen. It was thanks, rather, to Emma's determination. She had brought the script to Aron Ryder (a film producer at Newmarket[34]), who claimed the script to be "the most innovative thing he had ever encountered" and offered a budget of $4.5 million (Nathan, 2022:38). Indeed, in terms of large cinematic creations, *Memento* could still be considered as "low-budget" (Mooney, 2018:19). However, as can be imagined, this was not what Nolan perceived – having filmed *Following* over a year, only on Saturdays, and with a measly budget of $6000, Nolan was in a world completely unfamiliar to him. The $4.5 million was surprisingly intimidating for Nolan; with such a large budget – for him personally – came a few challenges that Nolan was not accustomed to: the ability to purchase various resources yet not being able to properly pay staff, possessing such money yet unable to buy anything you want that may increase the quality of the film. The most troublesome issue was the delegation of work (Mooney, 2018:19). As previously discussed, Nolan takes a very personal approach to his filmmaking. With such a large project, Nolan was required to delegate a lot of work that he was previously responsible for – the most difficult being the cameraman[35]. Wally Pfister was the lucky cinematographer chosen by Nolan. Being previously a news cameraman, Pfister had a keen eye for natural lighting and simplicity, something Nolan himself was known for. Finally, possessing the resources to bring his complex ideas to life and hiring a brilliant cinematographer, Nolan was ready to launch a career that would snowball for years to come.

---

[32] The structure Nolan was after can be described as an unsolvable puzzle created by the character. Due to the character's mental illness, he does not experience the same world the other characters do; hence, this unsolvable puzzle acts as a means to provide the character with meaning – his only purpose in life is to attempt to solve a puzzle he does not know is unsolvable – thus never to experience the futility of his existence.

[33] This gave Nolan an advantage over other independent filmmakers fighting for recognition: once a film has received attention, the first question usually asked is, what is next? Having *Memento's* script completed, Nolan only had to hand over a copy (Mooney, 2018:19).

[34] Originally a film financing company that started in 1994. It has grown to be a prominent film production and distribution company (Coe, 2001).

[35] It can only be assumed that being a cinematographer for Christopher Nolan would be quite demanding, seeing as he has a unique vision for his films and may be more involved than other directors. Luckily, Nolan found a cinematographer who would work alongside him for many years. The pair would eventually be regarded as "one of the defining director-cinematographer combinations of the twenty-first century" (Mooney, 2018:20).

Indeed, *Memento* was the spark that Nolan's strike of cinematic flint generated. However, after feeling as if everything was falling into place at an almost astonishing, unbelievably coincidental rate – as if by some higher power, fate was at play – reality crashed Nolan's speeding career. After completing the filming of *Memento* (2000), Nolan, his wife, and other members involved in advertising the film[36] organised a screening in hopes of catching the interests of major distributors while they were gathered for the Spirit Awards[37] (Shone, 2020:83). Unfortunately, this was unsuccessful – not due to the quality of the film but rather fear of its complex nature (Shone, 2020:84).

Memento lay dormant for a year, stressing out the producers who had invested millions and shattering the wave of excitement Nolan was riding. For a man who is obsessed with time, it felt as if time was against him and his career was moving backwards (Nathan, 2022:41). The survival of Nolan's unique choice of narrative technique can be partly credited to his producers, Newmarket, as during this uncertain time, they never pressured Nolan to change a single frame or concept of the film in order to lessen its complexity. Instead, they decided that if no one was willing to take the leap of faith, they would have to take it themselves; creating their own distribution department, they successfully released the film (Nathan, 2022:41).

Disproving many who claimed that audiences would not enjoy the film, *Memento* was a generational phenomenon: like an addiction, audiences would return to the theatre multiple times to re-watch the film, hoping to solve the puzzle – unfortunately for them, the puzzle became more incomplete as the narrative would seem to have more complexities with every watch[38] (Nathan, 2022:46). When interviewed about his success, Nolan notes that many believe it began with the *Batman* trilogy – a much-beloved character, a leading company in the world of cinema (Warner Brothers) and a budget unlike he ever had. On the contrary, however, he states that *Memento* was the biggest leap in his career and provided confirmation that he could challenge and entertain a large audience with his ideas (Nathan, 2022:46). The snowball that was slowed for a while had begun to roll once again and has not slowed till this day.

2.2 The style of Christopher Nolan

What is the style of Christopher Nolan? What aspect of his writing and filmmaking can be attached to his name? Well, these questions sound rather foolish by now, seeing as the answer is obvious: time distortion. Indeed, this is the dominant answer and is sufficient in its own way. However, for the purpose of this study, providing this answer would be an injustice towards Nolan and his work. The usage of time in Nolan's films is not simply to present narratives in a different order but serves to emphasise themes such as memory and

[36] The film's producers, Jennifer and Suzann Todd, and executive producer Aaron Ryder.

[37] This awards ceremony aims to gather and acknowledge leading talent in the industry with awards such as Best Feature, Best Director, Best Screenplay and Best Breakthrough Performance (Film Independent, 2023).

[38] *Memento* would go on to be screened in over 500 theatres and bring in over $40 million worldwide (Nathan, 2022:46).

identity, among others (Furby and Joy, 2015:7). Time is a technique that Nolan utilises in order to represent his narratives in a perplexing way that yields a feeling of awe, compassion, bewilderment, suspense; and is also effective in provoking his audience. This is because the "plots and central characters of Nolan's films regularly display symptoms of neurosis, often stemming from guilt, trauma or some overarching sense of loss" (Furby and Joy, 2015:9). Considering this, it could be claimed that Nolan's representation of psychological states and trauma are as great in importance as his representation of time[39] – in fact, I would argue they are dialogical. This is the first instance where Nolan and Herman can be clearly linked: Herman claims that polychronic narration is most evident in traumatic narratives since "traumatic occurrences resist being presented in narrative form" (Herman, 2004:220). It seems that Nolan shares this inclination, as, in theory, many of his films could be presented in a natural narrative form (ABCD), yet this would dilute the film's inherent themes and distance the audience from the character's traumatic state. Hence, Nolan's fascination with time – it is the perfect medium to explore and represent his interest in the (often traumatised) human mind.

Understanding that Nolan's style is a combination of time, plot and character, it would be best to explain the former first, seeing as the use of time deformity is a choice (the narrative could be told in chronological order). Having been briefly introduced to Nolan's early life, it is evident that a fascination for the obscure, unusual and traumatic has long been a part of Nolan's creative process. Hence, Nolan's films have frequently been referred to as "saturated with *noir* sensibilities"[40], with his first two films, *Following* and *Memento*, possessing the strongest *film noir* characteristics (Furby and Joy, 2015: 8). Nolan recognised the old detective genre[41] when listening to his brother's pitch for *Memento* and decided to plunge himself into the genre (Nathan, 2022:35). Here, Nolan was introduced to the complexities offered by the genre (deception, flashbacks, tension and suspense), the *noir* hero (suffering from a tragic flaw, moral ambiguity or a fatalistic outlook) as well as everyday neurosis:

> When speaking about the appeal of *noir,* Nolan has said that he found himself drawn to 'working within a genre that lets you take our everyday neurosis – our everyday sort of fears and hopes for ourselves - and translate them into this very heightened realm…That way, they become more accessible to other people. They become universal. They're recognisable fears; they're things that worry us in real life.' (Furby and Joy, 2015:9)

Although Nolan's films after *Memento* do not pay such full homage to the *film noir* genre, one can still locate its influences fairly easily; specifically, the representation of trauma and inner conflict: *Insomnia* (2002) emphasises the question of one's moral telos, *The Prestige* revolves around self-identity and moral justification, the *Batman* Trilogy (2005-2012) explores the meaning of justice and one's fears, *Inception*

---

[39] Joy (2020:1) states that "trauma haunts the cinema of Christopher Nolan".

[40] The Encyclopaedia Britannica (2013) defines *film noir* as a "style of filmmaking characterised by such elements as cynical heroes, stark lighting effects, frequent use of flashbacks, intricate plots, and an underlying existentialist philosophy."

[41] *Film noir* was prevalent in American crime dramas.

(2010) highlights grief and loss, *Interstellar* (2014) provokes themes of moral choices, epistemology and ontology, etc. (Eberl & Dunn, 2017:6-8).

It has become clear that Nolan's style regarding plot and characters often represents neurosis, philosophical uncertainties and the role society plays in any character's problems. Nolan has what seems like an unquenchable thirst for the representation of tragedy. All his characters encompass difficult psychological states of mind that result either from an outside or inside source (a tragic event befalls the character, or he/she suffers from a mental illness). Through these characters, Nolan purposefully aims to provoke philosophical reflection among viewers (Eberl & Dunn, 2017:5). This is one of the primary reasons why I believe Nolan to be an important literary figure: one of the main arguments as to why literature exists, is that it allows a reader to observe multiple situations and choices – as well as the consequences that arise from those choices – without having to personally experience the character's fate (Brislin, 2016:199-200). Nolan's films are littered with philosophical questions in the same way a novel from a prominent literary writer would be; the only difference is the medium through which these questions are portrayed. The sheer number of philosophical themes to be found in Nolan's films has caused some scholars to regard him as a 21st-century philosopher; instead of scrolls or books, Nolan uses film (Brislin, 2016; Eberl & Dunn, 2017; Goh, 2022) Therefore, I can sum up Nolan's style regarding plot and characters as representing philosophical and existential questions, mainly epistemological and ontological, through characters who experience trauma.

Having explained the Yin of Nolan's film style, we now move on to the Yang: time. As discussed above, Nolan was always curious about time (the geometric narrative style found in architecture, *Doodlebug's* never-ending loop). Along with his inquisitive nature about the human psyche, it was only a matter of time before Nolan found the correct combination of the two.

I cannot claim that *Memento* is *the* film in which Nolan cracked the code linking trauma and narrative time – The films following *Memento* are different and present other mixtures of the traumatic and time distortion – however, it can be credited as the first blockbuster film in which Nolan began experimenting with his overall "recipe". It should be noted that the use of time as a technique in Nolan's films was indeed, at least partly, rooted in personal enthralment. Nolan acknowledges[42] this and finds pride in his talent to manipulate time. However, this is not the main reason for his time-altering decisions – for Nolan, the most important aspect of his filmmaking is the raptness of the audience (Olson, 2015:44). In order to preserve the immersion of the audience, Nolan will go as far as changing any references in a story that reminds the audience they are watching a movie. An example would be the story of Batman: it is well known that Bruce and his family attend the film *Mask of Zorro*; however, Nolan altered this by having them attend a theatre performance instead (Olsen, 2015:46). Nolan has also gone against his contemporaries in terms of the shift to digital forms of film production, by choosing to use 35mm film stock with 70mm IMAX film. This decision is not a

[42] Shone, 2020:85.

rejection of modernism; it is Nolan defending the immersion of audiences that he is so well known for[43] (Whitney, 2015:31-33).

The lengths Nolan goes to in order to preserve the immersive experience of his audience may seem drastic and superfluous; however, as has been emphasised, Nolan does not merely aim to present the audience with an interesting story – no – Nolan is driven to hypnotically make the audience experience the film through the hero's eyes, to share the emotions portrayed and leave the theatre pondering the philosophical themes presented[44]. Joy (2015:10) remarks that Nolan's mission to provide the audience with the most immersive experience is "one that is intimately bound to an understanding of the fictions we tell ourselves to protect us from a truth we so often cannot accept".

In essence, we can deduce from the above information that Nolan strives to create films that emphasise the traumatic experience of his characters in such a way that the audience becomes absorbed in the narrative, thus understanding the traumatic emotions on a personal level[45]. In order to do so, Nolan must portray these traumatic events and characters in the most optimal and immersive way. For Nolan, however, having the best plot, talented actors, perfect setting, and the right equipment to capture it all in the most immersive format was not enough – he needed to utilise his other passion; time.

By utilising time as a technique that complicates the narrative in terms of order, Nolan exponentially increases the interaction of the audience with the film. Not only is the attention of the audience gained, but the hero's state of mind and experiences are portrayed in such a way as to stimulate the audience into trying to understand the situations the same way the character does – they are, in a way, experiencing the events with the character, not merely observing them. This is best explained through the words of Shone:

> Many directors have played fast and loose with chronology in their films—Orson Welles, Alain Resnais, Nicolas Roeg, Andrei Tarkovsky, Steven Soderbergh, Quentin Tarantino, to name a few—but no director of the modern era has laid such systematic siege to what he calls "the tyranny of the projector" as Nolan. *Following* chops up three different [timelines] and cuts back and forth between them. *Memento* cuts back and forth between two [timelines], one running forward, the other backward. *The Prestige* cuts between four [timelines]. *Inception* cuts between five, of varying speeds, where five minutes spent dreaming is equal to an hour in the real world. Whole lifetimes can play out—men and women can grow old together—in the time it takes a van to fall from a bridge. In *Interstellar*, a father is separated from his daughter by relativity's distorting effects on time and is forced to watch helplessly as her childhood slips

[43] According to Olson (2015:45), "IMAX has the highest resolution of any format, and IMAX exhibition provides the most immersive audience experience."
[44] Although most of Nolan's films are fictitious, he wants the audience to feel as if the events – and the associated conundrums –are as real as possible. At a young age, Nolan would insist that his short films should be as real as possible (Nathan, 2022:15).
[45] Shone (2020:13) describes the experience of watching Nolan's films as follows: "easy to enter, Nolan's films are fiendishly difficult to exit, ramifying endlessly in your head afterward like plumes of ink in water. The film we have just seen cannot be unwatched. It isn't even really over. In many ways, it has only begun."

> away right in front of him. Representing more than just the tinkerings of a watchmaker, his films have an unerring grasp of the way time feels—its surges and slippages, constrictions and convergences. Time is Nolan's great antagonist, his lifelong nemesis. He seems almost to take it personally. (Shone, 2020:85)

During an interview with Shone, Nolan admits he does indeed take the notion of time personally; however, I disagree with Shone's thought that time is some sort of nemesis or an antagonist for Nolan. It must be remembered that Nolan has deeply appreciated temporality his entire life and has a keen sense for its usage in representing traumatic ideas. With that in mind, I rather perceive his relationship with time as a competitor. Nolan challenges standard notions of time and explores how time can be used to emphasise the trauma depicted in film. He pushes the boundaries with every new personal film he makes, as if he is on a never-ending pursuit to find the limits of time in our reality.

Nolan might have struck gold by aligning his passions and interests; his passion for film, coupled with his fascination for trauma, the human psyche, and temporality, has shaped him into an ideal philosophical filmmaker. Nonetheless, I digress. It has been stated that Nolan uses temporal deformities to enhance the immersion of the audience and their attachment to the character and his or her trauma. To better understand this, I will briefly provide some more examples[46]:

In *Memento,* the audience is introduced to Leonard Shelby, an amnesiac driven by revenge. Leonard's memory has not completely disappeared. He has memories before his head injury but cannot form any new ones. His brain reboots after every ten minutes. Of course, the narrative could have been written in chronological order, but this would not have achieved Nolan's goals as discussed above. Instead, the narrative is structured backwards, yet it also moves forward – paradoxical, indeed, but only the start of Nolan's puzzle games. This allows the audience to share the feelings of confusion and disorientation with the protagonist. The questions regarding context: Where are we? What happened before? What is currently happening? These are the same questions Leonard asks – the audience is experiencing the world through the main character's eyes and can, to a degree, empathise with the character[47] (Brislin, 2016:200-201). The protagonist's quest for answers is shared with the audience, creating an immersive narrative experience.

The Prestige utilises four timelines in which two main characters are involved. Nolan alternates between these timelines to illustrate the decaying state of mind of the two characters. Not only does the audience perceive an event, but they are able to immediately witness the result of that event years in advance. It becomes evident that the characters' actions have led to a cause-and-effect chain where many details are a mystery, only being revealed in small segments when the timeline shifts. What is remarkable about this story is that the two men are magicians, attempting to uncover each other's secrets. Due to the film's sequencing, the audience becomes as mystified by the illusions and events as much as the characters are. Again, the

[46] A more in-depth discussion will occur in the chapter analysing the selected films.
[47] While filming *Memento,* the camera was mostly positioned over the actor's shoulder.

audience does not know more than the character and, therefore, shares the inquisitive nature, bewilderment and tragic emotion of the protagonists.

Inception is a film favourite amongst Nolan fans. It contains multiple timelines that exist simultaneously, creating a suspenseful atmosphere. By alternating between dreams, each having a slower or faster time speed than the other, and by connecting these dreams with past events, Nolan is able to explore, with the audience, the themes of loss, grief, morality and parental sacrifice.

These examples only scratch the surface of Nolan's traumatic temporal representation. Hopefully, it has provided an adequate sense and example of Nolan's style. A last aspect of Nolan's filmmaking process should be mentioned in this chapter, however, as it technically contributes to Nolan's style; however, it pertains more to his personal choice as an artist.

Understanding Nolan's unique skill (leaving his audiences in complete confusion, hungry for the answers to his perplexing puzzles), one would imagine that with such a large – almost cult – following, Nolan would certainly enjoy taking credit and discussing his creations as any literary figure would – after all, that is what is normally associated with Hollywood stars (the enjoyment of being praised for their accomplishments). Also, considering the struggles Nolan had to experience to be recognised would certainly give him the right to enjoy being admired, or so one would think.

On the contrary, Nolan prefers to distance himself from his creations (Joy, 2015, 2020; Shone, 2022). This is because Nolan believes that if too much information is connected to the director/writer, it detracts from the film's independent status. It lessens the film's ambiguity by creating answers based on the director's life: "I don't want people to know anything about me. I mean, I'm not being facetious. The more you know about somebody who makes films, the less you can just watch the movie" (Joy, 2015:3). Nolan also does not provide any answers to his puzzle narratives, preferring that the audience ponders over their own thoughts and opinions [48](Joy, 2020:12).

2.3 Critique of Christopher Nolan

Before mentioning the criticism, Nolan has received throughout his career, it should be noted that academic critique on Nolan is limited. Indeed, while Nolan has caught the interest of scholars in literature and film, the pool of academics and their writing is limited. As a writer and filmmaker in the prime of his career – and the fact that narrative analysis has become increasingly interested in visual narratives[49] – the amount of

[48] Shone (2020:95) notes that Nolan was amazed after attending a dinner with the *Memento* team, including Pearce (the movies protagonist), where they argued over the movie's ending – two years after they completed the filming. Shone remarks that Nolan's films are "born to be argued over."
[49] (Ryan, 2014; Thon, 2015, 2021; Wolf & Bernhart, 2017)

academic work on Nolan's films should increase rapidly – this dissertation is one of those works. Considering this, the review to follow will be sourced from only reliable academic sources.

The first critique of Nolan's career may be the most important as it attempts to investigate whether or not Nolan can be considered an auteur – a title that Nolan would certainly have wanted as it makes him an outlier in the assembly of mainstream directors (Parks, 2015:17). I am also choosing to start with Park's critique as it involves investigating the many reviews, both academic and mainstream, that Nolan has received throughout his career.

The title 'auteur' is a prestigious accomplishment given to directors considered innovative beyond the average director. The term originated with French film critics in the early 1950s and was intended to be a means of critically evaluating the medium of film, as had been done for novels (Parks, 2015:18). It allowed directors to be associated with the "artistry and power behind a film", it connected meanings and themes in the director's oeuvre and separated them off as artists instead of functionary directors[50] (Parks, 2015:17). To provide a more structured definition, Parks (2015:18) defines auteur as, "a director who consistently displays an artistic signature in the films he or she directs, making the director the primary source for artistry and unity in not just an individual film, but in a set of films". In the 1970s, film became increasingly popular and, along with it, an increase in directors trying to make a name for themselves; cinematic critique became more popular and sterner. The problem, however, was that auteurs were considered individual directors (going against the constraints of Hollywood-produced movies), but with film's growing profitability, large companies had the funds to support a director's vision – even if it was a risk and not considered popular by the masses (Parks. 2015:19). As a result, a rework was suggested regarding the criteria of being auteur: auteurs should no longer be limited to "romantic, solo, artistic individuals who fought against production companies" and should include commercial directors who represent a production company as a means to reach a larger audience[51] (Parks, 2015:19). Having proposed such a shift in criteria, it was stressed that for a commercial director to be considered an auteur, they must encompass the characteristics that connect them to their work publicly; meaning the thematic choices that tie a director to his work must be acknowledged through not only his/her films and promotional interviews but through the eyes of the audience and critical discussions (Parks, 2015:19).

Understanding thus the criteria and personal achievement of being labelled an auteur, it can be imagined that Nolan faced many questions about whether or not he could be labelled as such. In order to answer this question, Parks (2015) took on the challenge of compiling all of the literature (academic and non-academic), discussing Nolan and his work with a focus on whether he is seen as the primary meaning-maker in his films.

---

[50] Once the concept spread around 1962, it greatly contributed to the critical analysis of film as narrative art, thus separating auteur films from purely mass-produced films (Parks, 2015:18); modern romcoms personally come to mind as mass-produced films.

[51] Directors such as Steven Spielberg and George Lucus are thus considered auteurs who worked within the Hollywood system instead of opposing it.

With regard to *Following,* it is understandable that there is a lack of material[52]. Despite this, *Following* succeeded in its purpose: gaining attention. On the one hand, a few magazine reviews identified Nolan as one of their directors to keep an eye on. On the other hand, other reviews claimed that Nolan's manipulation of narrative structure was merely a trick to get noticed (Parks, 2015:22).

Building off of *Following's* momentum, Nolan's *Memento* disproved him as an attention-seeking trickster. Instead, reviewers noted the similar techniques used in the film and became more inclined to treat him as an established director instead of an aspiring filmmaker with something to prove (Parks, 2015:22). Likewise, the audience began forming a connection between Nolan and his films. The viewers would expect his films to contain philosophical themes like the ones mentioned above, and also that the plot structure, while unorthodox, could be trusted in terms of sequencing and form. *Memento* had successfully linked Nolan's style to film, as a "talented independent filmmaker who creates intellectual films which address themes at the centre of filmmaking and identity" (Parks, 2015:23). With that being said, a director cannot take up the title of an auteur by having his style recognised: it must continually develop and be sustained through multiple films.

Parker (2015) ends his investigation with Nolan's next film, *Insomnia* (2002), Nolan's first studio-financed film with renowned actors[53]. The importance of *Insomnia* is that it acts as a kind of test to see if the characteristics associated with Nolan and his previous films would be carried over into a narrative whose material was not written by him and with a production company looming over his shoulders. The reviews varied somewhat; on the one hand, many claimed that Nolan successfully balanced his artistic, intellectual sense of cinematic form with Hollywood's restrictions regarding entertainment and profitability over artistic expression (Parks, 2015:24). On the other hand, reviewers claimed that the material did not require Nolan's sophisticated style, resulting in the film feeling heavier than it needed to be. Nonetheless, it proved that Nolan had acquired an established set of characteristics that could be called upon when viewing his films. In doing so, Nolan became recognised as a Hollywood director whose films are engraved with narrative sophistication – a characteristic audience members would come to expect before even entering the theatre. Therefore, Nolan was labelled as a unique type of auteur: the blockbuster auteur.[54]

A prominent critique regarding Nolan's oeuvre concerns the representation of gender. This critique is one of the more academically discussed aspects of Nolan's films (Deakin, 2015; Taylor, 2015; Margaret, 2015).

[52] Although there is a lack of literature on *Following*, it should not be considered lesser than Nolan's other films. After all, every future auteur has their first small, relatively unknown, movie.

[53] Robin Williams, Hilary Swank, Al Pacino, etc.

[54] I have stated that the opportunities presented to Nolan throughout his life have appeared to be destiny; his first affiliation with a studio is no different. Warner Brothers and Nolan have benefited greatly from their partnership: Nolan is provided with the opportunity to explore his personal filmmaker interests, while Warner Bro. profits from the film's success as well as having Nolan direct other projects of their choosing (Joy, 2015:6)

Stemming from feminist theory, Nolan has been criticised for his portrayal of women as 'typical' *femme fatales,* a comment archetype in *noir* films (Joy, 2015:8).

Taylor (2015) addresses the concern about women's roles in Nolan's films, with a focus on his *Batman* trilogy. The main problem she discusses is the fact that women serve the stereotypical role of inspiring the male protagonist, a concern for many contemporary feminist critics (Taylor, 2015:64). These roles reveal women as having no importance as developed characters and are merely there to have some violent, often times fatal, event befall them, thus inspiring the hero and propelling him forward in the narrative[55]. Despite this claim, Taylor (2015:65-75) credits Nolan for his portrayal of *femmes fatales,* stating that these women create a sense of distrust in the hero, causing the audience to critically evaluate the hero and, at times, disagree with his actions. However, Taylor reveals that this unique representation of *femme fatales* is short-lived. The traditional *femme fatale* is a woman who hides her threatening abilities, which later become discovered. Towards the end of any Batman film, the power she once had is, however, lost to her male counterpart, thus restoring power in the patriarchy (Taylor, 2015:65). Nolan represents such a character in *The Dark Knight Rises* (2012). Despite the unique portrayal of this character, she too falls to the fate of all *femme fatales*; falling in love with Bruce, she abandons her selfish interests and becomes an ally, relinquishing her power to him. According to Doane (1991:2), the fate of the *femme fatale* resembles male masculinity's fear of the loss of dominance, which Taylor believes is evident in Nolan's films. Deakin (2015:87) speculates Nolan's reason for portraying women in such a way as the following: "a child of Generation X, Nolan was born into anxieties circumventing 'greed is good' yuppie idealism, 'ornamental culture', the so-called feminisation of labour and, largely by inflection of the former, most importantly a period in which later fervent changes are made towards a certain 'crisis of masculinity'."

The few paragraphs above summarise the main (academic) critical literature on Nolan. Any further relevant critique of Nolan will be incorporated when analysing his films. To summarize, this chapter has introduced Nolan, providing reasonably in depth information regarding his early life, influential works, accomplishments and personal style; the latter having also acquired him the status of auteur.

[55] Taylor (2015:72) does, however, praise Nolan for not making the female protagonist leave her current love interest for the dark and mysterious hero, thus diverging from the norm.

CHAPTER 3: THEORETICAL FOUNDATION

Having been introduced to Christopher Nolan as a modern-day figure of interest for scholarly studies, it is now important to bring relevant aspects of the history of film and narrative analysis to light. This is necessary in terms of providing a well-contextualised theoretical background to the current study. In doing so, it will be shown how the field of narrative studies has evolved and why current narratological studies[56] have come to focus more and more on visual narratives, such as film, as works of literary fiction; therefore, placing importance on developing the theories currently applied to narrative analysis to accommodate new mediums. Some predominant theories used to analyse films are those that have been used for decades and were developed explicitly with the novel in mind. As time passed, stories became more complex due to the special traits attached to different mediums and modern figures – directors such as Quentin Tarantino, James Cameron, Steven Spielberg, Christopher Nolan, etc. – who challenge various themes, aspects and techniques.

The purpose of this chapter is thus to better acquaint the reader with the medium of film as well as the concepts mentioned in chapters one and two, as these theories will be necessary to better understand the analysis that follows this chapter. This chapter will be divided into three subsections: the study of film, the study of narrative time and the study of time in film – each with its own sub-headings. As can be expected, the literature pertaining to the study of narrative, time and film is vast and cannot be discussed in full. Therefore, only the most relevant theorists, concepts and theories will be interwoven into the relevant sub-sections.

It has been emphasised that this study aims to wrestle with Nolan's complex use of narrative time in a selection of his films. In order to accomplish this, it will be argued that current narrative theories (and their related analytical frameworks) are mostly insufficient in properly analysing Nolan's complex use of narrative time. Herman's theory of polychronic narration, however, comes seems most promising and will provide the main framework of analysis. It will be important to showcase in chapter four the various theories that can be applied to film in order to argue why Herman's polychronic narration theory has been chosen instead of others. Coupled with this, a brief section will be devoted to the origins and evolution of film. In doing so, film's growing influence on literature and fiction will be revealed, as well as the importance of subjecting them to literary analysis and criticism. Having already introduced various narrative time theories, this section will also serve to connect film and narrative analysis. This will be accomplished by linking the theories mentioned to how they have been applied to film theory thus far. It will also highlight the prominent theories used when conducting a literary analysis of films.

[56] When referring to narratological studies, I am assuming Meister's (2009:329) definition as a "humanities discipline dedicated to the study of the logic, principles, and practices of narrative representation" and a reflection on "changes in research agendas and methodologies in the humanities." Therefore, when referring to "narrative studies", I am referring to the branch in narratology that investigates the elements of narratives, such as time.

3.1 The Study of Film

The notion of cinema as a medium for literary study has received substantial resistance in the critical literature. According to Gaudreault and Jost (2004:45), early critics such as André Bazin[57]supported film analysis, while many other theorists and narratologists dismissed film as having no place in narrative studies. Fortunately, the concept of film as being inferior to written literature has begun to lose credibility as the interest in film studies has increased in narratological studies [58](Ryan, 2014a; Thon, 2015, 2021; Wolf & Bernhart, 2017).

Although Nolan is the central figure in this study and his films are the focus of narrative time analysis, this study implicitly supports the notion of film as a predominant medium in literary studies. Therefore, it is important that the medium be introduced and discussed to a degree fitting this study; hence, what follows will be a brief introduction to the history of film.

By discussing the history of film, one can, of course, trace its heritage back as far as the creation of the first conceptual idea of moving images and intricately discuss every aspect until the modern day. However, much of such information would be irrelevant for the purposes of this study. Therefore, I will commence this chapter with a brief section on the origins of cinema and film-making, after which important theorists, theories, critics and criticism, and characteristics will be presented.

3.1.1 The history of filmmaking

The factors that led to modern-day film can be attributed to instantaneous photography[59] and non-photographic elements such as sound and editing (Kracauer, 1960:147). The first can be accredited to being used mostly by Muybridge and Marey, utilising older devices such as the "magic lantern[60]". The thought of moving images had been a sought-after achievement since 1839, when "the first daguerreotypes and talbotypes (early prototypes of the camera) appeared" (Kracauer, 1960:147). Unfortunately, this ambition met with failure until the 1850s, when a breakthrough occurred in photographing moving images, although it was only around 1860 that Cook and Bonnelli developed a device called the photobioscope and made promises of capturing reality in motion. Unfortunately, the idea of moving images remained stagnant for

[57] André Brazin broke ground in the film scene by shifting analysis from montage to the compositional choices made by the filmmaker. In doing so, Brazin argued that film re-represented reality rather than altering it through technical means, such as cutting and editing. This allowed the director to come into focus whose "artistic choices permeated each frame of their films" (Braudy & Cohen, 2009:41).

[58] According to Meister (2009:329), narratology is a discipline in the humanities that studies the principles, logic and practices of narrative representation. As narratology falls under the human sciences, it is a discipline that produces methodologies and research agendas in constant change or development. Therefore, narratology explores the production and process of narrative "in a multitude of forms, media, contexts, and communicative practices" (Meister, 2009:329).

[59] Photographs containing any evidence of movement.

[60] The machine assumed to be invented by a Dutch scientist, Charles Hugyens, which used a kerosene lamp that allowed light to pass through a lens, thus creating a sort of slide show that mimicked moving images (Manley, 2011:2)

some time still, relying on rapidly projected static photographs to replicate movement, until the famous story of British photographer Eadweard Muybridge reinvigorated the movement yet again. Manly describes the story as follows:

> California governor Leland Stanford hired Eadweard Muybridge to win a bet that all four hooves of a racehorse left the ground when it ran. After several attempts, and after faster exposures became possible, Muybridge eventually developed the idea of setting 24 cameras in a row along the track, attaching a string to each camera shutter, and by an electric device, setting the cameras in successive operation as the horse passed. Muybridge continued perfecting the technique, mounting the photographs on a Phenakisticope and projecting them through a magic lantern. In 1879, the photographer toured Europe with his invention: the Zoopraxiscope. (Manley, 2011:3)

Many further improvements were made after this event; however, the only one of importance for this section is that of Thomas Edison. Edison perceived the increased interest in moving images and decided to throw his hat in the ring, the purpose being to create a companion for his phonograph and thus essentially creating a music video – this coincidently occurred at the same time as George Eastman's 1889 Celluloid film (Manley, 2011:3). According to Manley (2011:3), Edison will always be regarded as the American father of the movies; however, it was William Dickson who would invent the movie camera and projector for which Edison would take credit, as his employer (Britannica, 2024). Soon, there was a race in the industry, and in order to stay ahead of the competition, Edison opened up Kinetoscope Parlors[61] that showed snippets ranging from comics, music hall sequences and, the most popular, boxing matches[62].

Having introduced the origin of the device used to create film, it is important to briefly discuss the figures that initially led the movement of filmmaking, namely the Lumiére brothers (Auguste and Louis) and Méliès. The Lumiére brothers were not only responsible for creating popular films but also created the means through which film could be projected onto a large screen, thus making it possible for large audiences to view the film simultaneously as opposed to Edison's peep boxes.

At the time, the act of projecting a film onto a large screen was a thought that interested Edison and many others – this comes as no surprise as large audiences used to gather when the earlier magic lantern was used (Manley, 2011:6). Considering the difficulties and attempting to focus on his individual screenings, his Kinetoscope – which begun to fade by 1896 – Edison decided not to invest in large scale screenings. This left a large and profitable gap in the market, quickly filled in France by the Lumiére brothers. In Paris, on December 28, 1895, they introduced to the public the first commercial public exhibition of film (Cook &

[61] The first Parlor consisted of five Kinetoscopes (or "peep boxes") placed in a straight line. A customer could enter and pay twenty-five cents to view one of the films on display (Library of Congress, 2024).

[62] Interesting to note is that Edison created the first "film" to be censored – something that would follow film's development, and which is prevalent in today's industry – showing footage of a dancer revealing her undergarments (Manley, 2011:5).

Sklar, 2024). Their creation was called the Cinématographe,[63] which they used to showcase ten films, thus earning them fame across Europe and the US as the first to project films on a large screen (Manley, 2011:6).

As mentioned above, they did not only create a means to view films on a large screen but also created their own films. Kracauer (1960:149) describes their films as a "true innovation" compared to other films being produced. This was because, as opposed to what was popularly shown (gags, skits, comics, boxing matches, etc.), the Lumiére brothers' films contained a sort of documentary style, capturing everyday life, such as people leaving the train station; and scenes of nature[64] – they thus took film's realism to an extreme by not representing a fictional story but merely showcasing the world as is (Kracauer, 1960:150). This documentary style received abundant praise, with some critics subsequently claiming it to be the truest form of cinema as it replicated the novel[65] and the theatre by showcasing the manifestations of nature and the human heart (Kracauer, 1960:150). Despite fame and interest, the masses quickly became bored with their films, and their success faded after only two years of production. However, the hole they left in the industry was fortunately not long-lived as Georges Méliès enthusiastically took over where they left off in 1897, injecting new styles and techniques of story-telling into the medium (Kracauer, 1960:151).

Indeed, while Méliès brought new ideas and styles to the medium, he did not completely stray from his predecessor's example. He created films where his audience was led to observe the world they reside in, but these were not what solidified his name in the cinema hall[66] (Kracauer, 1960:151). The difference between these two pioneers is that the Lumiére brothers perceived their creation's purposes as a means of scientific curiosity and rejected its potential for artistic expression (Kracauer, 1960:151). Méliès, on the other hand, disagreed and used film as a means to showcase his fantastical ideas and stories. Instead of showing his audiences the world around them, he transported them away from it; by diving into fantasy, Méliès created a new genre[67] in which he would use techniques unique to film in order to create illusions suited for his fairy-tale plots (Kracauer, 1960:152). The film *A Trip to the Moon* (1902) can be argued not only as one of Méliès most famous films but also as the most influential film of the early 20th century, as it was the first to achieve international distribution (Cook & Sklar, 2024). Méliès would go on to be responsible for many of today's special effects and film illusions by attempting to utilise film techniques in ways never before imagined. In essence, it was Méliès who made it possible that certain narratives could only be told using the medium of film or lose what made them unique – visual immersion and the spectacle of effects. There was, however,

[63] Manley (2011:7) describes the machine as a "lightweight, hand-cranked machine that could not only record motion photography but throw the images onto a large screen."
[64] The main reason for their documentary style of filmmaking was that the brothers realised early on that they were not interested in story-telling and the challenges that came with it. Any story-telling films that were produced by their company had no involvement from their side (Kracauer, 1960:150).
[65] This may be confusing as the films, in most cases, did not possess a story element. However, I believe this link to the novel is due to the fact that the brother's films presented, much like the novels of that era, the everyday life of people and nature.
[66] To emphasise Méliès contribution to film, between 1896 and 1913 he produced, directed, photographed and acted in more than five hundred films (Cook & Sklar, 2024).
[67] According to Manley (2011:10), Méliès was the first filmmaker to produce "fantasy, science fiction, horror and dark cinema."

one unfortunate flaw in Méliès directing: he was at heart a theatre director. This led to him to never move the camera or change its position between scenes, resulting in his films always resembling a theatrical performance instead of providing a purely cinematic experience (Kracauer, 1960:153).

After Méliès, the film industry grew steadily, with more filmmakers entering the field, and duplications were made of what was successful. A figure that holds importance to this study is Edwin S. Porter – who watched many of Méliès films – who saw that film could be used in a more efficient way than Méliès theatrical style, that being the introduction of continuity (Manley, 2011:11). Vaughan (2023) defines continuity as "the process of combining related, but noncontinuous, shots into a cohesive sequence." Indeed, before Porter entered the scene, films depicted a story where one event led to another. However, as predominately seen in Méliès films, these scenes would follow the characters first depicted and their events step-for-step without changing perspective: in *A Trip to the Moon,* the film would begin with a group of scholars in a classroom, then to a construction site (the building of a space rocket), then to the moon and finally back on earth. Porter, on the other hand, realised that a story could be told using noncontinuous yet related shots and still be understandable and complete (Vaughan, 2023). An example would be his famous *The Great Train Robbery* (1903), which told the story of four robbers infiltrating, stealing and killing on a train. However, the entirety of the film does not follow the robbers' actions in a continuous manner. Instead, it depicts the robbers tying up a telegraph operator, infiltrating the train, stealing from and killing some of the passengers and making their getaway. After that, the film no longer follows the robbers further, as would be expected. Rather, the film returns to the telegraph operator who escapes and alerts the posse[68] who are dancing in a saloon. The posse enters the chase and eventually kills the robbers. These sequences are not continuous; they do not follow the same characters and their actions throughout the entirety of the film. However, there is still a continuity of action achieved.

Porter's experience and ingenuity landed him a job as a cameraman for Edison, where he soon got promoted to director of production for the company. This would lead to Porter being thought of as "the most important filmmaker of the first decade [20th century] of movies" (Manley, 2011:11). This was because of many reasons and contributions; however, one stands out as important for this study: his movie *The Life of an American Fireman* (1902) is argued to be the first film to utilise a different form of temporal continuity (Manley, 2011:12). The film depicted a building on fire in which a woman is trapped, and the rescue operation conducted by a group of firefighters. The film would depict two different perspectives: the first being inside the building where the woman is trapped, showing how the firefighters enter the house and save her and her child. The film then goes back to before she was rescued and shows the perspective of outside the house and how the firefighters entered and carried her out. Thus, the temporal order of the film follows **A** (the firefighters being dispatched to the fire), **B** (the firefighters entering the house), **C** (the firefighters saving the woman and child), and then **B** and **C** again.

[68] The Britannia Dictionary (2024) defines the term as "a group of people who were gathered together by a sheriff in the past to help search for a criminal."

Porter would go on to make great strides in the film industry even after the Lumére brothers referred to cinema as having no future in 1902. In fact, after this statement was made, Porter released *The Great Train Robbery* (1903), which is considered to be the origin of the Western genre (Manley, 2011:12). The film sparked a new genre that would be developed over decades and become one of the most popular film genres. Porter also utilised the camera differently by placing the viewer directly in the action:

> Porter created his narrative by editing multiple shots together of the same scenes and using a variety of different and creative camera angles. Characters run at and fight around the camera. The camera moves with the action, offering a visual immediacy that was unknown to film-going audiences. The film was fast and filled with crime and violence, which was popular with the filmgoers. It also represented the changing tastes of audiences, who now preferred storyline films over actualities. (Manley, 2011:12)

Porter's movie is considered the first-ever blockbuster film, saving the film industry and changing how films are made and viewed forever. It opened up numerous doors for technological advancements, special effects and techniques that would revolutionise the industry. After some years of corporate drama spanning from 1908 to 1914, multiple production companies would develop and become established household names, such as Fox, Warner Brothers, Paramount, etc. (Manley, 2011:14). The thought of cinema having no future was now something of the past, as the popularity of the medium did not cease growing, and a new chapter was about to unfold: the end of the silent film.

According to Bazin (1950:41), the silent film peaked in 1928, whereby supporters of the silent film fell witness to the dismantling of their art form by the introduction of sound into film[69]. There are many who believe cinema underwent an aesthetic revolution as a result – which it almost certainly did [70]– however, our interests lie in the evidence of differences between groups of directors during this cinematic paradigm shift. During this shift, it became evident that certain directors stood above the rest with regard to quality and personal addition to the film's themes, motifs and stylistic elements.

The years 1925 to 1935 and especially the 1930s to 1940s highlighted two key points: one, that although silent films had taken a back seat, there were still clear influences of it on the current films and two, that differences in groups of (and individual) directors was not primarily a matter of silence vs. sound, but of clear differences in stylistic and aesthetic choices (Bazin, 1950:42). In-a-nut-shell, the period spanning from 1920-1940 can be classified as having two opposing directorial groups: "those directors who put their faith in the image and those who put their faith in reality" (Bazin, 1950:42). But what exactly does that mean? "Image" here refers to those interested in what the screen adds to the represented object, the plastics of

---

[69] The "elites" of the time perceived sound in film as almost a plague in film art; for these people, film became an "embarrassment", and the realism sound introduced would only lead to chaos (Bazin, 1950:41)

[70] This cinematic shift can be thought of as ranging between 1928 and 1930. However, Bazin (1950:41) remarks that history does not show a real breach between the two art forms during this time and that many similarities can be seen. The real breach, and most important to this study, is that of the directors.

film[71]. When discussing directors who deal with reality, Brazin means those who "relate to the resources of montage, which, after all, is simply the ordering of images in time" (Bazin, 1950:42). Montage is of more interest to this study as it is what further developed the medium of film and accelerated the concept of film criticism[72].

Braudy and Cohen (2009:1) define montage as "the art form of combining pieces of film or shots into larger units—first, the scene, then the sequence, and, finally, the complete film." Montage allowed film criticism to flourish due to the ability to break down scenes in order to analyse the specific episode's meaning[73]. The father of montage can be largely attributed to the director D.W. Griffith and can be thought of as initiating the snowball that led the film to be classified as an art form and a language[74] - the language of film will be addressed later in this section.

Griffith created two types of montage, which can still be seen in modern films: parallel and accelerated. Parallel Montage creates the effect of two actions occurring simultaneously over geographical distances by jumping between the two "shots[75]" (Bazin, 1950:42). An example would be a bank teller working blissfully, then the shot would change focus to a group of robbers preparing their heist. These two actions are accruing at the same time, however there is a constant change in perspective and geographical position until the two meet, thus creating tension through the use of montage. Accelerated montage brings forth images of modern-day car-chasing-films such as the *Fast and Furious* franchise, whereby alternating shots of the vehicle and its destination grow closer[76] – the distance becomes closer and the time between changing shots become faster. There is a third form of Montage (montage by attraction), created by S.M. Eisenstein – an important figure in the study of montage. Montage of attraction can be thought of as the same as the modern techniques of comparison, metaphor or ellipsis; it was defined as "the reinforcing of the meaning of one image by association of another image not necessarily of the same episode" (Bazin, 1950:42). To emphasise the impact of montage and the work of D.W. Griffith, Manley provides the following:

> Griffith advanced not only the notions of narrative brought forth by directors such as Porter but used and progressed camera techniques and the art of cinematography. Griffith heralded what would become a modern age of filmmaking, and the success of his film would guarantee the continued success of movies. (Manley, 2011:15)

[71] By plastics, I mean for example aspects one would find most common on the surface level of production such as CGI, lighting, make-up, special effects; these do not represent reality but enhance and modify it.
[72] See Malraux's *Psychologie du cinema* (1998), where he describes montage as the reason for film being regarded as an art form and thus creating a language of its own.
[73] The spectator began naturally to accept the viewpoints created by the director and the shifting dramatic interests in each scene.
[74] Braudy and Cohen (2009:1).
[75] "Shots" are the individual scenes taking place.
[76] Shots of wheels spinning is also a common example of accelerated montage in modern film.

What is important to understand about montage is not that it provides different ways of creating sequences of images; rather, it allows meaning to fully take shape in film, not through one image but a combination of images juxtaposed against each other – the meaning and action produced in the initial scene can be carried over to the last shot taken. I believe this montage quality will be evident in the analysis section of this study. It will be seen that one of the primary aspects of Nolan's works is meaning-making and that particular forms of montage will become visible when wrestling with his films[77]. Considering the above information, I will argue that Nolan falls into Bazin's group of directors who "put their faith in reality". The reason is that montage – as opposed to the "plastics of film" – is not intended to replicate reality but reveal it[78], an important technique in Nolan's films that will be uncovered in chapter four.

3.1.2 Auteur Theory

Having discussed the origins and important early developments of film, we can now begin discussing the unique characteristics present in film, which will also be evident in Nolan's work, by commencing with auteur theory.

The term 'auteur theory' was coined by a prominent figure in the film industry, Andrew Sarris, who is responsible for elevating the standards of film reviewing and criticism in American film (Braudy and Cohen, 2009:451). The actual concept of auteur theory was, however, developed first in *Cahiers du Cinéma*[79]. The purpose of auteur theory was to develop a set of conditions that, if met, established a director as an auteur, which broadly classified them as being exceptional and ground-breaking. As can be imagined, such conditions were rarely agreed upon by critics who all believed in different qualities that made a director special and thus deserving of the auteur 'crown'. Therefore, the theory struggled to gain recognition and prominence in film criticism. However, no substitute theory rose to challenge auteur theory, and many critics still believed in *a theory of directors*; especially prominent in French criticism[80]. Hence, Sarris felt the need to revisit the theory, reigniting it in American film criticism.

Clearly, when a film is created, many agents are at play, not just the director. However, as Sarris (1962:451-452) states, the director can be considered the movie's author, the person who provides a personal flare that can be seen in the movie. Unfortunately, equipping a movie with a unique directorial 'personality' is not all that needs to be thought of [81]. Thus, Sarris provides a short summary of requirements that he has compiled, linking many separate auteur theories together. The first requirement he emphasises is that a director must

[77] Seeing as montage deals specifically with ordering images to create meaning, it will be interesting to see how Nolan's complex ordering of film images will interact with the principles of montage.
[78] Bazin (1950:45).
[79] A French magazine developed by Bazin in 1951 where auteur theory was mainly developed by two theoreticians (François Truffaut and Jean-Luc Godard) who would later become influential directors of the French New Wave (Britannica, 2024).
[80] Referred to as *La politique des auteurs* (Sarris, 1962:451).
[81] A director cannot merely add a stylistic or aesthetic choice to a film and be thought of as exceptional and above his/her peers.

possess a high level of technical competence (Sarris, 1962:452). What is meant by this is simple: there should be a certain level of understanding of how a film is put together into a coherent whole. The director should be knowledgeable not only with the camera but also with the behind-the-scenes aspects of filmmaking, such as editing[82]. If we return to chapter two of this study, it will be seen that Nolan is certainly a director with technical knowledge far exceeding what is expected. As someone with very few resources, Nolan was engaged in all aspects of filmmaking, and when he was eventually given a large budget, he found it difficult to delegate technical tasks to others as he preferred to do them himself; this is still evident in his current films.

The second requirement that Sarris (1962:452) mentions is “the distinguishable personality of the director as a criterion value”. Surprisingly, this criterion mostly applies to the American film industry because a director needs to portray his/her personality through the “visual treatment of material rather than through the literary content of the material[83]” (Sarris, 1962:452). The third criterion Sarris mentions goes hand-in-hand with the second as it concerns interior meaning. This aspect of auteur theory seems to be the most difficult to explain yet the easiest to observe, and thus, I will attempt to explain it as best I can.

Sarris (1962:453) classifies this interior meaning as being “extrapolated from the tension between a director’s personality and his material.” First, let’s address what is meant by a director's personality. As I understand it, what a director adds to the material can be traced back to himself/herself. If two directors were given the same script and all things being equal, the differences each would possess could be classified as the director’s personality coming into play. Sarris (1962:453) states that the difference could be as little as the change in rhythm in the two films. When trying to exemplify this vis-a-vis Nolan, I would claim that when watching his films, many aspects could be thought of as deriving from his (directorial) personality. For one, we know that Nolan has a strong desire to represent reality, which is clear in his films e.g. by his focusing on the smallest details to best immerse his audience in the film. This would be far different if another director were to direct the same film and whose personality might, say, be more predisposed towards a faster-paced film, thus achieving a more suspenseful watch. Having understood this, how does interior meaning develop *from* the tension between the director’s personality and his material?

Sarris agrees that such an explanation is very difficult and ambiguous; he concludes by arguing that it is the director’s soul (Sarris, 1962:453). I understand how Sarris has come to this conclusion, but I believe I can provide a better explanation by specifically referring to Nolan’s films. When watching Nolan's films, an inherent quality resonates within his films. He does not merely wish to present a narrative but to imbue it meaningfully. When watching Christopher Nolan’s film, you are tasked with deciphering these meanings, whether ontological or epistemological; whether about understanding loss, identity, or family. This is what I believe the third criterion entails: the ability to grasp the narrative and mould it in such a way that meaning

[82] Sarris (1962:452) does note that to become a director in today’s film industry, one does not require technical knowledge and that “an expert production crew could possibly cover up for a chimpanzee in the director's chair.”
[83] Sarris argues this is because much of the American film industry is commissioned.

resonates within the film. This is evident in every Christopher Nolan film, which brings us to the last requirement of auteur theory, a pattern. In order to be thought of as an auteur, a director must exhibit these traits throughout his oeuvre and is expected to produce films of equal quality. The films do not have to be even remotely similar, such as in the same genre. Still, the interior meaning of the various films must be traceable back to him or her. Nolan's films vary from an ominous, dark-hooded hero (Batman) to a man trying to hold on to any form of happiness in others' dreams (Inception). Yet, no matter how different these two films are, they contain unique aspects that only Christopher Nolan can apply and are traceable only to him and are evident across his entire oeuvre.

3.1.3 Narrative in Film

Thus far, film's origins and a key aspect of the medium have been showcased; however, this chapter has yet to discuss film's capabilities of being a narrative medium – such as the novel – that allows for scholarly analysis. Henceforth, I will be using Tom Gunning's[84] *D.W. Griffith and The Origins of American Narrative Film* (1991) as a reference; it is within this work that Gunning utilises narrative discourse theories typically applied to novels to argue for film's narrative nature, while using Griffith's films as an example.

In order to achieve the classification of film as a narrative form of discourse, Gunning begins by establishing the meaning and explanation of narrative discourse through using the work of Gérard Genette[85] – arguably the modern father of the study of narrative discourse and an important figure in this study. As to be expected, Gunning (1991:391) notes that Genette's work acts as a model that he tailors to better suit the medium of film; this is because, as mentioned, Genette's work was specifically designed for literary works (novels in particular).

To understand narrative discourse, the different elements of narrative must be brought to attention. The first being the "actual language of a text that the story tells", which can be thought of as how the contents of the story are communicated, such as written or visual (Gunning, 1991:391). The second element refers to the actual content communicated (the *story*) that can be studied "without regard to the medium, linguistic or other" (Chatman, 1978:19). The third element is what has been classified as *discourse*, the act of narrating the story whereby the story is told by someone or represented in a certain way; these three elements can be summarised as "the means of expression, the events conveyed by these means, and the act of enunciation that expresses them" (Gunning, 1991:391). When it comes to the analysis of narrative, one tends to focus on the *discourse* of the narrative (how the story is told) – which is precisely how this study will analyse Nolan's

[84] An influential figure in film theory who has written extensively on film's emergence in the twentieth century as well as the role of directors, which has allowed for a greater understanding of film's narrative structure (Braudy & Cohen, 2009:390).
[85] The work of Genette will form a part of the section to come, and therefore, a full, in-depth description of his theory will not be provided here.

films[86] – however, one cannot analyse the narrativity of narrative without the other two elements of narrative; thus, they form a dependant relationship (Gunning, 1991:391).

Having discussed Genette's classification of narrative elements in literature, Gunning begins to apply and mould Gennett's work into film theory, attempting to establish its place in narrative studies. Unfortunately, Genette, and so many others at the time, believed film to be 'beneath' literature and unable to exhibit narrative *discourse* – indeed, the story can be studied; however, because *discourse* existed in text, it could not be separated from its designated medium (written form being able to selectively choose what is shown to the reader, while film lacks this ability) (Gunning, 1991:393). It is here that I need to bring to attention an important literary figure who shared the stage with Genette but disagreed with Genette's view, as he claimed: "any message by means of which any story whatsoever is communicated can rightfully be considered as a narrative" (Gaudreault, 1988:84). It seems that Gunning stands with Gaudreault. However, he also appreciates the fundamental differences between literature and film and thus understands how Genette and others have come to believe that a theatrical performance of a story cannot obtain to narrative *discourse*. Here, Gunning seeks to argue that film contains narrative *discourse* by acknowledging the two mediums' differences while pointing out film's unique *discourse* capabilities.

Gunning begins by highlighting the main reason why it is argued that film does not contain narrative *discourse*: the fact that it can only show and not tell. What is meant by this? According to Genette (1980:166), "showing can only be a way of telling." In other words, Genette is claiming that only literature has the ability to selectively choose what to show through careful and strategic word choices to form meaning. In contrast, the inherent photographic qualities of film create an excess of memetic images and thus lessen meaning. Despite the director's choice of setting and objects, he/she cannot avoid the mass of information presented, as opposed to verbal description[87] (Gunning, 1991:393). This, therefore, leads to the conclusion that film cannot be told, that its story has no narrator and that a single shot can contain (show) great detail but tell very little.

Gunning accepts the claim that film is strongly mimetic. However, he does not believe that it voids film from obtaining narrative discourse and he certainly does not believe there is no filmic narrator. Instead, film's mimetic quality should be embraced as the medium-specific way of telling a story:

> If we approach film as a narrative form which presents stories to an audience, it nonetheless would be foolish to ignore a unique quality of its narrative discourse – its inherent photographic tendency towards mimesis, towards the representation of a world from which the filmic narrator can seem to be absent. However, this aspect of film does not destroy the concept of the filmic narrator; rather it defines its roles. (Gunning, 1991:394)

[86] In film studies the discourse of a narrative can also be referred to as the language used.
[87] Gunning (1991:394) refers back to the first films produced by the Lumière brothers and Edison's company, where even their simplistic nature could not avoid the excess of photographic reality.

What is understood from the above passage is that Gunning argues that the ability that film possesses to capture reality is not a hindrance to its ability to tell or create *discourse* in the form of a story/narrative – it is a medium-specific quality. Nor does this quality preclude film from having a narrator. When Gunning states that film's memetic quality defines the filmic narrator's roles, he means that the world presented to the audience is a result of a direct effort from the narrator to overcome the "initial resistance of the photographic material to telling by creating a hierarchy of narratively important elements within a mass of contingent details" (Gunning, 1991:394). It is, therefore, that Gunning proposes that a fourth element be added to Genette's theory: narrativisation. This addition deals directly with the filmic narrator's decision to shape and define meaning in the film. However, it should not be thought of as separate from the other three narrative elements; rather, think of it as the relationship the other three share – and it is the result of these three that is of particular predominance in film. Gunning describes this best as follows:

> The process of narrativisation binds narrative discourse to the story and rules the narrator's address to the spectator. It organises discourse to tell a story, binding its elements into this single process. In this process the energies of film are channelled toward the explication of a story, and through this channelling create and define a situation for the spectator. The concept of narrativisation focuses the transformation of showing into telling, film's bending of its excessive realism to narrative purposes. Narrativization, which would be something of a tautology in literary text where the signs are naturally predisposed to telling, regulates the balance between mimetic and narrative functions in the filmic sign. (Gunning, 1991:394)

Given the above, it becomes abundantly clear that *discourse* should not be regarded as the same thing as *story* (the latter being able to be subjected to analysis despite the medium); rather, it must be treated as medium-specific. Hence, when dealing with *discourse* in film, one can refer to it as *filmic* discourse (Gunning, 1991:395). Having established that *discourse* does, in fact, appear in film and that film indeed possesses a narrator, Gunning (1991:395) attempts to uncover how exactly filmic discourse operates in creating narrative meaning: "how do films pick up and indicate the significant elements within this detailed and contingent reality and endow them with a narrative meaning? What is it that tells the story in a narrative film? What are the marks within the film?" In order to answer these questions, Gunning argues that discourse in film can be best explained by the relationship of three different levels that express narrative information: "The pro-filmic, the enframed image, and the process of editing [88](Gunning, 1991:395).

The first level of film *discourse*, pro-filmic, can be thought of as the strategic decision made by the director before 'capturing' with the camera. These decisions can range from the smallest prop – such as a watch that the main protagonist wears, gifted to him by his father and thus acting as a symbol of remembrance and loss – to the setting and even the actors chosen to fill the role. This level represents the direction and stylistic choices made by the director. Acting as the narrator, he/she reveals his/her narrative intentions that will

[88] Gunning notes that these levels do not operate in isolation, nor is there a hierarchy of importance between them (Gunning, 1991:395).

hopefully be understood and received by the audience (Gunning, 1991:396). If we are to quickly regard Nolan, the first thing that comes to mind is Nolan's choice of personal objects in *Inception.* More specifically, the spinning-top that the main protagonist uses to determine whether he is in a dream or not; by specifically choosing something that spins, it creates tension and confusion in the audience due to its continuing nature; the viewer never receives confirmation at the end of the film if the character was in a dream state or not.

The second level of filmic discourse, enframed images, is where the narrative decisions made by the director in the pro-filmic phase are final as they appear captured by the film. This is, however, by no means natural or straightforward. The director has to make various decisions on where to place, how to act and from what point of view the pro-filmic elements are captured. It is here where the director's personality and meaning-making become most apparent. Gunning describes this process as follows:

> The whole host of formal devices that derive from the effects of perspective, selection of camera distance and angle, framing for composition, and the effects of movement within a frame determine specific choices available within this level of discourse. Whether on a conscious or preconscious level, the viewer recognises this construction of the image as a powerful narrative cue. (Gunning, 1991:396)

It is within this level of film discourse that it becomes apparent that the arguments made by Genette and others seem false. If we regard the above information, it is clear that these decisions made by the director constitute, in fact, narrative discourse – it is the chosen style and arrangements of a story in order to create meaning. Nor is there by any means a lack of a narrator, for if there was, then no story could exist; there is clearly an abundant amount of "telling" within film. I merely argue that the rules previously applied to narrative discourse – that being telling is showing – do not appropriately accommodate films' unique narrative representation: in that in order to tell, it must show. If I take the same example used in the previous level, that of the spinning top, I could say that without a narrator, all that would be captured is the object spinning and then falling – no meaning is thus created. However, a narrator becomes clear with a director who used filmic discourse. The camera angle begins at a distance and slowly zooms in as the protagonist blurs out of view as he walks to his children. The top is now the only focus; before it can be determined whether or not it falls, the film ends. This meaning is created through the filmic discourse of the story by using a narrator/director.

The final level of filmic discourse is editing, which occurs after filming. It involves the selection, arrangement, and cutting of the film (Gunning, 1991:396). According to Gunning (1991:396), this level of filmic discourse correlates to tense in textual literature. This is due to tense being able to control the temporality within the narrative. A gathering of unedited shots does not allow for an understandable difference in temporality within the narrative[89]. It is, therefore, that flashbacks and flashforwards are created

[89] Not that Nolan's temporally complex narratives are very understandable post-editing.

during the editing process. Gunning (1991:397) states that Genette's duration classification in narrative *discourse* – which will be expanded on in section 3.3 – can be found in the editing process. In chapter four, it will be revealed how Nolan utilises this level of filmic discourse to create temporal deformities and create meaning within his films.

The three levels of filmic discourse mentioned above work in unison to showcase the relationship between *story* and *discourse* in film – they are, as I mentioned, how films "tell" a story (Gunning, 1991:398). Therefore, these three levels of filmic discourse cannot be regarded as individual stylistic choices made by the director as they are essential for the very existence of narrative in film. Indeed, directors could use these three levels differently, and thus, their style and personality are revealed.

The director's personality, style and meaning-making have been discussed in this section; hence, I only touch on the relationship between a director and his audience to further emphasise film's correlation with narrative *discourse* as already established in literature and thus strengthen the argument of film containing *discourse*. It has been well-established in semiotics that within literature, narration involves "an interrelation between a narrator and a narratee" (Gunning, 1991:399). This relationship in literature has long assumed that the reader acknowledges that he/she is engaging in a narrative and, therefore, is required to construct – or in some cases, especially Nolan's, to reconstruct – the story from the narrative *discourse* used in the text (Gunning, 1991:399).

If we are to consider this, it can be seen how Genette and others believed that film would be unable to create this relationship with its viewers, as it (supposedly) lacks the ability to precisely choose the images the viewer must focus on. On the contrary, Gunning (1991:399) argues that "film's narrative *discourse* does not overpower a passive spectator but provide patterns within film that provokes active mental responses and sets in motion the range of cognitive processes."

I believe Nolan is well suited to represent this relationship between narrator/director and audience – even if he does not wish it to be so. The style and personality that Nolan brings to his films – the requirements discussed earlier that clearly classify him as an auteur – have made his films renowned for requiring the audience to actively engage with the narrative in order to understand and create meaning.

Given the above, I believe an important part of film study has been brought to the fore: film can truly be a medium wherein scholarly analysis can take place. This was shown by showing that film is, in fact, a narrative genre that contains *discourse*; this was, in turn, done by showcasing the filmic discourse techniques used to, as literature does, create meaning and, therefore, *tell* a story through its unique showing qualities.

3.2 The Study of Narrative

The above chapters and their relevant sections have served as an introduction to some of the relevant theories informing this study. Christopher Nolan has also been showcased as a leading literary figure whose work requires scholarly attention. The medium (film) through which Nolan practices his narrative *discourse* has been argued briefly as one deserving of narrative analysis. Many of Nolan's films have also been argued to contain complex temporal structures that resist current temporal theories, thus requiring a theory better suited to analyse their complex temporal structures. The theory that will be used to argue this point is David Herman's theory of polychronic narration.

The purpose of this section is to connect the theories and arguments made in chapters one, two, and section 3.1. Thus far, an explanation of film, its history, development, medium-specific qualities, and unique theories concerning prestigious directors has been provided. The medium's struggles to be recognised as literary and narrative have also been mentioned. However, the theory of narrative, its origins, development, and eventual reasons for implementing restrictions on what is and is not narrative, especially what may be considered literary narratives, has not been given due attention. I believe this to be important because understanding the history of narrative will bridge this study's two main components: narrative time and film as a medium requiring scholarly research. By understanding what is to follow, one will be able to tie together the importance of studying narrative time as an element of narrative studies and the ability film possesses to utilise narrative time uniquely, thus opening new avenues for narrative exploration.

This section will provide a brief account of narratology's history and how narrative studies became prominent. While discussing the historical development of narratology, I will also discuss how the traditional definition of narrative was developed through various stages, as it is a vital part of narratology's history and a prominent focus area in current narratological research.

Once the discussions mentioned above are completed, one will be able to connect the study of narrative and film fully and, therefore, possess the necessary understanding to connect what has been learnt to the study of narrative time; thus achieving the ability to comprehend all the arguments made when conducting the analysis of Nolan's films in chapter four.

3.2.1 The History of Narratology and Narrative Studies

As with many aspects within this study, the history of and literature on narratology are extensive, with many figures and events contributing to its current state. However, not all of these contributions are relevant to this study, and therefore, only the most influential ones will be mentioned and discussed.

It would be best to revisit the definition of narratology. According to Meister (2009:329), narratology is a humanities discipline that studies the principles, logic, and practices of narrative representation. As narratology falls under the human sciences, it is a discipline that produces methodologies and research agendas that are constantly changing or developing. Therefore, narratology explores the production and process of narrative "in a multitude of forms, media, contexts, and communicative practices" (Meister, 2009:329).

The development of narratology (or its history) as a discipline, as seen in many of the theories and concepts within the field, is challenging to explain. The reason for this is its adoption by many theorists separated by time and geographical location. Indeed, while I am not stating that theorists of narratology were not influenced by each other, it is true that narratology cannot be placed on a perfect timeline representing its birth and growth by meticulously plotting theories and concepts in a cause-and-effect relationship. However, what can and has been done is to designate certain milestones of the field's development in the form of distinct historical periods: Russian formalism, Structuralism (narratology's classical phase), and the Postclassical phase. Yet, even this over-simplistic timeline is debated among narratologists. According to Herman (2005:31), narratology's chain of development should be thought of as "fields" moulding at different times and special instances developing at individual rates with "more or less diffuse causal networks".

Herman attempts to clarify the confusion as follows:

> The field constitutes, instead, a cluster or family of related developments with intersecting lines of descent; in this context, earlier developments have a shaping but not determinative influence on later ones, and whereas some modes of analysis branch out from and feed back into a shared historical tradition, others represent theoretical innovations that have not had a larger continuing impact on this research domain. (Herman, 2005:31)

Having highlighted the complexity of narratology's development as a discipline, I will now attempt to provide a brief summary of its core developmental stages, with a particular emphasis on those stages that relate to this dissertation.

The concept of narratology[90] can be dated back to the earliest philosophical writings, as seen in Plato's *The Republic* and Aristotle's *Poetics.* Plato made the distinction between mimesis and diegesis: the first involves the character's direct speech in dialogues and monologues, while the latter includes all utterances by the author (Meister, 2009:332). This distinction made by Plato foreshadows later works, such as the 20th-century opposition between showing vs telling and Genette's theory of voice. By including Plato's work in this

[90] It should be noted that although the term narratorly (the study/analysis of narrative) is used when discussing contributions as early as Plato and Aristotle, it was only coined during the structuralist movement (discussed below).

summary, it shows not only the earliest evidence of narrative analysis but also the link between concepts developed over centuries.

As has been shown, one of the defining concepts developed in narratology is the *story* vs. *discourse* relationship. This concept holds special importance to this study as it correlates to the analysis of narrative time. According to Puckett (2016:24), Aristotle's *Poetics* is not only to be thought of as one of the earliest examples of narrative analysis but also the first work to discuss what is now referred to as the *story* vs. *discourse* opposition. Aristotle's *Poetics* comprises multiple ideas and concepts that have influenced narratological works throughout history (Miller, 1972; Doležel, 1990) till the present – as seen in this study. An Aristotelian distinction that has influenced multiple works would be his definition of plot, which Meister (2009:333) describes as a "construct presenting a subset of events, chosen and arranged according to aesthetic considerations". Meister's (2009:333) definition of Aristotle's theory of plot shows that it falls under the *story* vs. *discourse* opposition: "presenting a subset of events (*story*), chosen and arranged according to aesthetic considerations (*discourse*)". Aristotle's theory was focused on tragedy, more specifically, how *story* and *discourse* must be used to create a successful tragedy. Aristotle believes that a tragedy's plot must be a "structured, coherent representation of an event or series of events" and that a good plot is made, ordered and whole; thus following a "unity of action" (Altman, 2008:3; Puckett, 2016:25). Aristotle addressed temporality in a successful tragedy as containing events that follow natural laws (cause and effect) and which must possess a clear beginning, middle and end. From this very brief explanation of Aristotle's theory of plot, it is evident that narrative analysis took place as early as Aristotle. This also indicates how far the study of *story* and *discourse* has developed.

True, Arisotle's narrative analysis of tragedy is revered for its influence on future studies. However, it also allowed early scholars to use the theory as a gavel to bring 'order' and 'structure' to narrative studies, dismissing texts or mediums that did not fit neatly into the theory. According to Altman (2008:2), the definitions of narrative (what can be considered as a literary narrative) provided throughout history have been "tightly tied to a particular type of plot", thus "privileging a particular type of narrative…" For Altman, this favouring began with Aristotle's *Poetics*, which was intended for the analysis of tragedy; it nonetheless became regularly applied to a broad spectrum of narrative texts. Scholars focused on Aristotle's emphasis on action, which must exist in all narratives. From this viewpoint, texts should contain a connected series of actions/events that affect the hero's life negatively or positively. Altman (2008:2) quotes Aristotle as saying that a text should be long enough "to allow of the hero's passing by a series of probable or necessary stages of misfortune to happiness, or from happiness to misfortune." These arguments made by Aristotle would cause a ripple effect throughout the centuries, causing later theorists to develop "plot-based definitions of narrative and plot-based notions of structure" that would eventually rule Western narrative theory (Altman, 2008:3). This was seen in section 3.1.3, where Genette believed film could not be considered as 'narrative' due to its 'lack' of *discourse*.

The first prominent influence of Aristotle on narrative theory occurred in France during the mid-1630s[91] (Altman, 2008:3). As will be seen later, this won't be the last time French theorists create a paradigm shift in narrative theory. During the mid-1630s, there were two large debates in France among the French intelligentsia. The first was called the "Quarrel over *Le Cid.*[92]" This debate targeted French tragedian Pierre Corneille and the debate evolved into questioning the "appropriate playwriting standards" (Altman, 2008:3). The debate led to a consensus that a play must conform to a "unity of action" – adapted from Aristotle and where there must be a clear cause and effect and time must follow a logical chronological fashion – resulting in French tragedies and tragicomedies abandoning "their epic and pastoral precedents in favour of plots adhering to the unity of action ideal" (Altman, 2008:3)

The second debate yielded a similar result nearly half a century after the previous one. This confrontation surrounded Madame de Lafayette's Novela *La Princesse de Clèves*. At the time, the concept of unity of action was only applied to serious theatre. However, after the quarrel, it was applied to the art of narrative prose; as a result, French prose would no longer accept the multiple plots of romance and epic (Altman, 2008:3). It did not take long for English and European writers to follow this new standard of narrative composition, which became known as novel writing: "Stories must be coherent; they must have a distinct beginning, middle, and end; they must connect their parts through clearly motivated causes; and they must expunge any material unrelated to this unity of action[93]" (Altman, 2008:3). Once the above aspects of the novel became regarded as the new definition of narrative, many other literary works became obsolete and not worthy of any attention vis-à-vis the definition of narrative. Thus, the novel was predominantly used when conducting narrative analysis and developing the definition of narrative (Altman, 2008:4).

The next signpost to be discussed with regard to narratology's development is Russian Formalism. Indeed, this is quite a leap in time from Aristotle's *Poetics*; however, very little is attributed to the period between Aristotle and Russian formalism as contributing to the development of narratology. Many introductions and companions to narratology (Phelan & Rabinowitz, 2005; Malpas & Wake, 2006) begin the history of narratology in Russian Formalism with some recognition of Aristotle's prior work.

When paying attention to the works conducted under Russian formalism, one can recognise the "intersecting lines of descent" mentioned earlier. This is because many of the Russian formalists' works heavily influenced later Structuralist theorists and narratologists; both sharing a similar mindset: to bring form and structure to narrative analysis. According to Puckett (2016:178), Structuralism's most important notions and theories derive from the Swiss linguist Ferdinand de Saussure, who was greatly influenced by Russian

---

[91] Before this event, there were many prominent writers and theorists in the sixteenth century who were involved in the revival of Aristotelian theory. A few notable figures are Lodovico Castelvetro (an Italian literary critic), Julius Caesar Scaliger (an Italian scholar), and Torquato Tasso (an Italian Poet) (Altman, 2008:3).

[92] It is a five-act verse tragedy about a Spanish national hero and is regarded as the first classical tragedy of French theatre (Encyclopaedia Britannica, 2019).

[93] This definition of novel writing perfectly matches what Aristotle argued tragedy should encompass: a hero's journey through a series of obstacles and stages from misfortune to happiness and vice-versa.

formalists' morphological concepts. Puckett takes a step further and argues that Russian Formalism and structuralism are deeply linked:

> …*form* suggests an organic unity of the kind that Aristotle had imagined, a morphological unity associated with biologically inflected assumptions about development and the necessary relation between means and ends. The idea of *structure* looks past these organic metaphors in order to consider what extrinsic as opposed to intrinsic forces, rules, or expectations are necessary to give a system its order; where structures (such as buildings) are made and governed by external ideas and forces… (Puckett, 2016:178).

Another example of this would be the work of Vladimir Propp (one, if not the most influential formalist), who conducted research on Russian fairy tales, which "presented a model of elementary components of narratives and the way they are combined", leading him to develop thirty-one abstract plot functions for Russian folktales (Meister, 2009:334). French Structuralists were influenced by Propp's work, admiring its originality; however, this led to the structuralists claiming Propp's research to be "sequential and mono-linear" and they suggested altering it with "combinatory, multi-linear models" (Meister, 2009:334). Another example (one which, as stated earlier, has become a defining contribution of Russian formalism and has specific importance to this study) is the relationship between fabula (*story*) and sujet (*discourse*), which would be adopted by and integrated into narratology by Chatman (1978).

Before discussing French Structuralism's long-anticipated contribution, some other pre-structuralist contributions to narratology should be mentioned as they are linked to this dissertation's focus on narrative time. One theory I want to highlight that emerged during the pre-structuralist era is Müller's (1948) distinction between narrated time vs time of narration. Müller determined that the relationship between these two components influenced the pace of a narrative. Müller's work led to Lämmert's (1955) elementary forms of narrative temporality, which, unfortunately, was impeded "by an overly complex and at times "fuzzy" taxonomy which tries to account for all forms of narrative flashbacks and flashforwards" (Meister, 2009:335). The aspects which made Lämmert's forms of narrative temporality "fuzzy" are precisely what this dissertation attempts to address.

Finally, we enter the era of Structuralism, which can be considered responsible for narratology's birth as a "coherent, structure-orientated variant of narrative theory" (Meister, 2009:329). As seen above, narratology (its practices, techniques, logic constituents, etc.) does not originate with the French Structuralists; instead, we can credit them with creating narratology's 'place' in academic research. French Structuralists absorbed past narrative concepts and devised new ones, resulting in a multitude of perspectives and theories that solidified the need to create a field focused on narrative analysis. Todorov (1969:10) was the first to coin the French term *narratologie*. In doing so, his mission was to construct a *univers de representations,* or "general logical and structural properties of narrative", that sought to shift from the "surface level of text-based narratives" (Meister, 2009:331). This "shift" involved narratology's claim to provide in-depth analytical

tools that could be used to interpret narratives' knowable and describable qualities without being contaminated by "the subjectivism of traditional literary guidelines"; therefore, gaining the ability to classify texts as "stable entities" which can be interpreted in predictable ways (Fludernik, 2005:38).

French structuralists came to the consensus that all the thoughts, theories and criticism on the structure, techniques, and requirements of literary narratives should be seen as its own academic discipline, wherein it could be developed and refined[94]. I use the term 'refined' because, in my own opinion, it best describes the mindset and goal French structuralists had. By applying linguistic notions to narrative analysis, structuralists achieved a similar goal to the formalists: the restriction of literary analysis to literariness (Puckett, 2016:217). To properly explain and place this statement in relation to this study, Puckett argues that structuralists, like the formalists, restricted narrative analysis to narrativity; in other words, texts (or other mediums) can only be considered worthy of narrative analysis if it ticks all the boxes of narrativity

A prominent figure in French Structuralism (also referred to as narratology's "classical phase") is Gerard Genette, who published the revolutionary book *Narrative Discourse* (1980). Many of Genette's theories have proved attractive to various past and present narratologists, an example being his theory of diegetic levels. Genette's work on the temporality of narrative (discussed later in this section) has been researched extensively and cannot be avoided in literary criticism (Fludernik, 2005:39). Despite Genette's pioneering work, however, he never intended to construct a coherent theory of narrative. This led to many controversies and is said to have been the reason for the birth of postclassical narratology (Meister, 2009:338).

Whenever thinking about "postclassical narratology", what personally comes to mind is a sort of renaissance of narratology. During this phase of narratology's development, there was an explosion of "critically orientated narratological models and theories [which] proved to be methodologically heterogeneous", causing one of the current leading narratologists to introduce a plural for narratology: "narratologies" (Meister, 2009:340). These "narratologies" contributed immensely to the narrative turn, whereby concepts and theorems born in narratology were linked to various other disciplines; it was thus also characterised by an interest in ideological, philosophical, and cultural issues. An example of some of these "contemporary narratologies" are transgenic approaches (Wolf, 2004), contextualist narratology (Chatman, 1978), and cognitive narratology (Herman, 2017). Another drastic shift that postclassical narratology initiated was the deconstruction of the idea that narratology is strictly a text-based theory. At the current time, narratology is considered a transmedial discipline, including a wide range of mediums, one of which will be used for the purpose of this study, namely film. Including a wide range of mediums in narratology does present a few issues, one of which is deconstructing what was previously defined as 'narrative'. It has been seen that traditional definitions of narrative (rooted in Aristotle's theory of plot) and the theories that are applied to it (Genette's classification of *story* vs. *discourse* and his theories of temporality) are restrictive to the novel and

[94] As stated before, it was during this era that narratology began to be included in the Humanities as a "discipline dedicated to the study of the logic, principles, and practices of narrative representation" (Meister, 2009:329).

cannot be sufficiently applied to other mediums, such as film. Section 3.1.3 serves as an example of postclassical research aimed at dismantling previous notions of film not belonging to the established definition of narrative. With this in mind, current narratologists are determined to introduce a modern definition of narrative, especially since the term itself seems to have become diluted by other fields of study. To provide insight into the current pursuit of a modern definition, I will briefly discuss Marie-Laure Ryan's research on the matter.

Marie-Laure Ryan provides her view in her essay *Toward a Definition of Narrative* (2007). According to her, a primary reason why there should be a definition of narrative is that the term has been adopted widely by various other disciplines such as politics, science, medicine, law, etc. (Ryan, 2007:22). This adoption has led to dilution and confusion in terms of what narrative entails, especially in narrative studies. The justification for this adoption is debated. However, Ryan (2007:22) presents Gerald Prince's thoughts on the contemporary use of the term as a "hedging device, a way to avoid strong positions." In doing so, speakers are able to soften any confrontational or controversial remarks. An example is the use of 'narrative' instead of 'ideology' as a less judgmental term or in the place of argumentation because it is tentative. In other words, the term 'narrative' is being used differently by many people to suit their needs.

A more positive explanation for the popularity of the term is provided by Peter Brooks, which Ryan (2007:22) quotes as follows: "I believe the overuse responds to a recognition that narrative is one of the principal ways we organise our experience of the world – a part of our cognitive tool kit that was long neglected by psychologists and philosophers." Ryan (2007:22-23) takes both of these claims into consideration and comes to the conclusion that narratologists should not take a strong defensive position but rather feel challenged "to work out a definition that distinguishes literal from metaphorical uses. Neither bowing to current fashion nor acting like a semantic police…"

Ryan (2007:24) claims that most narratologists of today agree that three "domains" are required when attempting to define narrative: *story*, *discourse* and *use*. Thus far, the relationship between *story* and *discourse* has been disclosed and will receive attention again in section 3.3. As a reminder, I briefly explain the relationship again: *story* refers to the actions and events within a story that comprise the narrative, and *discourse* refers to how these actions and events are narrated to an audience or reader – the same *story* can be told differently using various modes of *discourse*. Ryan explains that the third domain, "use", means that a narrative must perform "a certain societal function" (Ryan, 2007:24).

To expand what is meant by "societal function" – I believe the phrase to be slightly vague – I would rather claim that "use" should be regarded as the narrative needing to serve a particular purpose and thus create meaning. The author obviously decides this purpose (consciously or unconsciously), and hopefully, it is carried over to the viewer or reader. The "use" of the story must create meaning through various techniques applicable to the chosen medium. In doing so, the story separates itself from texts that merely tell of actions

leading to other actions. Instead, through its unique *discourse*, it creates meaning that emphasises and links to its purpose.

Returning to Ryan's thoughts, she highlights the fact that modern definitions of narrative using these three domains fell into the same fate as their predecessors: being used within the context of linguistics. According to Ryan (2007:24), the linguistic field that was applied to these domains in search of a definition was semiotic theory: syntax, semantics, and pragmatics.

The first field, syntax, is the least preferred and most problematic linguistic area when applying the three domains to a definition of narrative (Ryan, 2007:24). Structuralists have already made such attempts, as seen in the traditional definitions above. Syntax revolves around "clearly definable units that combine into larger linear sequences according to precise rules" (Ryan, 2007:24). This should sound familiar as the same approach was implied in traditional definitions: Aristotle's theory on tragedy, Propp's functions and roles, Genette's temporal theory, Greimas's types of actants, Barthes' kernels and satellites, etc. Unlike syntax, however, there are no set-in-stone, agreed-upon basic units of narrative. Not all narratives contain the same discourse and, therefore, cannot be held to a set of prerequisites. Thus, syntax holds little applicable value when applied to the definition of narrative.

The second field, semantics, holds a far more promising applicability. Semantic theory can be thought of as consisting of two aspects:

> first, the description of possible languages or grammars as abstract semantic systems whereby symbols are associated with aspects of the world; and, second, the description of the psychological and sociological facts whereby a particular one of these abstract semantic systems is the one used by a person or population. (Lewis, 1970:19)

Regarding the above passage, the appeal of semantic theory in narrative study is apparent: it is, in essence, a theory of meaning more than definable structures and the study of the relationship between material signs and the states of affairs to which they can refer. I mentioned in chapter two and in sections 3.1 and 3.2 the ability of film to present an image or object which refers to a certain meaning. Just as one is able to recognise the meaning of a skull with bones crossing it as poison or danger, thus it is possible to perceive an object or image in a film and understand its meaning. I will again use the spinning top scene from *Inception* as an example. When the scene begins to blur out the surroundings and focus solely on the spinning top, the object and its action evoke meaning: the object itself lacks stability; it requires the act of spinning for it to have a purpose – just as the main protagonist's instability requires him to seek out his deceased wife and regain his children to obtain a purpose. Although the theory of semantics seems promising, Ryan does not however believe it can be used to define narrative:

> …Since we cannot isolate a group of properly "narrative" signs distinct from the signs (or sign) of the supporting medium, the standard conception of semantics does not apply to the case of narrative. Or rather, the semantic system that underlies narrative texts cannot be distinguished from the system of the supporting medium: it is because we know what words mean that we can make sense of written and oral stories, and it is because we know what images represent that we can make sense of a comic strip or a silent movie. (Ryan, 2007:25)

Returning to the above passage, although semantics might not be as restrictive and structured as syntax, it is still a linguistic structure. An individual is taught the meaning of 'poison' and 'danger' and then learns that those definitions are associated with the skull and bones symbol. This cannot be said for narrative; there are no "narrative" signs that are taught to us through language. We understand the meaning of objects and images in film through our processing of not only one "narrative image" but through the understanding of the story as a whole: "Narrative semantics, in other words, is not a fixed relation between so-called "narrative signs" and their meaning, but the description of a certain type of cognitive construct" (Ryan, 2007:25). We cannot take the object and image of a spinning top and claim it to be a narrative sign for instability and continuity: in *Inception,* it rather has the connotation of continuity because we know that the overall motif of the film deals with the idea of an endless cycle. However, the same object and act of spinning could mean something completely different in another movie due to that movie's alternate overarching cognitive constructs, such as the themes and motifs of nostalgia or childhood[95].

Having expanded on Ryan's arguments, I agree that semantics cannot be used to define narrative completely. However, I support its use in narrative analysis, especially the notion of objects, acts and symbols evoking meaning in the viewer or reader. Ryan (2007:25-26) mentions pragmatics, especially because it too deals with signs – more specifically, how signs relate to users and context of use – however, she is quick to dismiss pragmatics's claim that narrative is a particular type of use as "narrative itself can be put to many different uses."

Ryan goes on to compare other claims about narrative and even constructs her own eight requirements for something to be classified as narrative. I would recommend reading her work, as it yields fascinating remarks and conclusions. However, seeing as this study does not intend to create a definition of narrative, I believe that the above information has successfully served the purpose of this section: revealing the restrictive presumptions of previous definitions of narrative and highlighting the current struggle for a modern definition. I believe this has been revealed, thus strengthening the importance of this study because it addresses works of modern literary fiction requiring narrative analysis, hence progressing the field of narratology.

[95] I say this because a spinning top has been associated as a game played by children.

3.3 The Study of Time in Narrative and Film

This is the last section of this chapter. It serves to tie together everything that has been said thus far and to provide the last bit of context needed to understand Herman's theory of polychronic narration and, therefore, the analysis chapter that follows. The preceding chapters and sections served to introduce this study's literary figure, the medium chosen, and the development (and issues pertaining to) narrative studies. It is within this section that we finally address this study's main purpose: the fact that currently applied temporal theories do not seem to appropriately analyse the unique temporal deformations seen in selected Christopher Nolan films.

In order to provide the most comprehensive structure for what is a very complex and difficult concept (narrative time), I will first establish briefly the importance of time in narrative studies. Secondly, I will showcase narrative time in its purest or most simplistic form. Thirdly, I will explain Genette's theory of narrative time as it is the most prominent theory when analysing any work of fiction temporarily, and the theory I will juxtapose with Herman's polychronic theory. Lastly, Herman's theory of polychronic narration will be introduced and explained in order to argue that it is better suited to analyse the selected works of Christopher Nolan, as opposed to Genette's already established theory.

3.3.1 The Theory of Narrative Time

Thus far, while narrative time has been identified as the main narrative feature being studied in this dissertation, other factors surrounding this feature, such as the medium narrative time is being used in, the figure responsible for manipulating narrative time (Nolan), and the disciplinary field that the study of narrative time belongs to, have been discussed. The unfortunate result of this is that narrative time's importance becomes potentially diluted, especially when a large portion of narrative time's contribution to the definition of narrative is limited to "a succession of events", as seen in section 3.2. Indeed, during the many decades of narrative study, some believed time (and space) were simply background elements (Bridgeman, 2007:52). In contrast, the importance of time in narrative is emphasised by Bridgeman:

> Narratives unfold in time, and the past, present, and future of a given event or action affect our interpretation of that action, while the characters who populate narrative texts move around, inhabit and experience different spaces and locations, allowing readers to construct complex worlds in their minds. To read a narrative is to engage with an alternative world that has its own temporal and spatial structures. The rules that govern these structures may or may not resemble those of the readers' world. And while readers do not, on the whole, try to map out hierarchical relations between world levels in the way narratologists do, they nevertheless have a sense that narratives can be divided into different temporal and spatial zones. (Bridgeman, 2007:52)

As can be seen, time plays a crucial role in the structure and understanding of a narrative. It will also be seen when analysing Nolan's films how temporality is used to create meaning and, at times, is the defining element within the narrative, not merely one of its (background) components. Before we can finally place our full attention on narrative time and the issues this study aims to address when dealing with Nolan's use of it, narrative time should first be explained in its purest form – before poets[96] began to experiment, and theorists began to create theories on how narrative time is constructed.

Time in narrative can be thought of as generally relating to the *story* vs. *discourse* relationship. This relationship has already been touched on and briefly explained. It is within this section that the appropriate attention can be given to this relationship and its importance. Indeed, as has been showcased, the opposition between *story* and *discourse* cannot be accredited to one individual or even one era/movement. It is a theory that has been cultivated since Aristotle and is still being nurtured today. There is, however, one individual and his work that can be regarded as solidifying this opposition's place in literary studies and narrative studies[97] and cannot be excluded when dealing with *story* vs. *discourse*[98]: Seymour Chatman's book *Narrative Structure in Fiction and Film* (1978). I believe Chatman's work to be fitting when explaining *story* vs. *discourse* because he not only gathers up all previous works on the matter but also argues against its restriction on other mediums, such as film:

> We should not be disconcerted by the fact that texts are inevitably mixed; in that respect they resemble most organic objects. It is their general tendencies that form the subject of rational inquiry. Narrative theory has no critical axe to grind. Its objective is a grid of possibilities, through the establishment of the minimal narrative constitutive features. It plots individual texts on the grid and asks whether their accommodations require adjustments of the grid. It does not assert that authors should or should not do so-and-so. (Chatman, 1978:18-19)

Chatman's statement in the above passage links directly with the arguments made in Sections 3.1.3 and 3.2. Nonetheless, it is important to properly understand the relationship between *story* and *discourse* because they are the two pillars that make up all narratives and 'through' which narrative time is constructed.

As seen in Section 3.2.1, the Structuralists greatly expanded the theory of *story* vs. *discourse*. They established that, at the fundamental level, all narratives are composed of both (Chatman, 1978:19). *Story* (called *histoire* at the time) refers to all events and actions that formed part of the story and can also include

[96] I refer to "poets" here as makers of all forms of writing as was its original meaning: "The word *poet*, which has been in use in English for more than 600 years, comes from the Greek word *poiētēs*, itself from *poiein*, meaning 'to make'" (Merriam-Webster Inc., 2024).

[97] I should again note the difference in terminology used. When referring to 'literary studies' in this dissertation, I refer to the field devoted to studying works considered "literature" and, therefore, worthy of scholarly analysis. When referring to 'narrative studies', I am indicating the field of study in Narratology that is devoted to studying what makes a text a "narrative" and what the elements are that make up a narrative and how they are used.

[98] Chatman's involvement in the *story* vs. *discourse* relationship and narratology as a whole can be seen in several sources in the academic literature: Malpas and Wake (2006); Herman (2007); Altman (2008); Puckett (2016).

characters, objects and setting. *Discourse* refers to the expression of these events and actions and how they are communicated (Chatman, 1978:19). This information is not new, but we are finally able to expand on it. According to Chatman (1978:43), the idea that plot is limited to what has been defined as *story* – the event, actions, characters and setting – was rejected by Structuralists as they argued there can be no plot without *discourse*: it is precisely because of *discourse* that an author or director is able to link these events into a coherent story. It is also because of *discourse* that a plot can be changed in several ways. This is because, through *discourse*, the author or director can select the order of events and actions, emphasise or de-emphasise certain aspects of the story, etc. (Chatman, 1978:43). To explain further, an example from one of Nolan's films will be used, thus not only achieving an understanding of *story* vs. *discourse* but also providing a taste for Nolan's work.

Not all of Nolan's films contain complex temporal deformities, which benefits this explanation of *story* vs. *discourse* as it will allow for a simplistic and foundational representation of *story* vs. *discourse* before it is used in a complex manner. I believe the best movie to be used in this regard is Nolan's popular film *Batman Begins* (2005).

The story of Batman has been told in many different ways and in many different forms[99], and it finally became Nolan's responsibility to utilise the *story* vs. *discourse* opposition to tell the story again in a unique fashion. With respect to the film *Batman Begins*, we can state that the *story* (its actions, events, characters and setting) can be summed up as follows:

A wealthy family (the Waynes) venture out to see a theatrical performance. During this performance, their son (Bruce Wayne) becomes frightened by the imitation of bats – a traumatic trigger due to an accident where Bruce fell into an old well and was swarmed by bats – leading the family to leave the theatre early. Once outside, in a dark alleyway, the family is mugged, and unfortunately, the mother and father are killed. Years pass, and a young Bruce is seen attending the trial of his parents' killer (Joe Chill). The trial is intended to allow the killer parole if he testifies against the city's leading crime boss, Carmine Falcone. After the trial, it becomes clear that Bruce intends to avenge his parents by shooting the defendant. However, his revenge is taken away by one of Falcone's employees who shoots Joe. Bruce attempts to confront Falcone, which only leads Bruce to realise that there is nothing he can do – Falcone has the city under his thumb, and Bruce is too weak to stop him. This leads Bruce to live like a nomad until his action leads him to be imprisoned somewhere in South Asia. Within this prison, he meets his soon-to-be mentor, Henri Ducard. Soon, Bruce is released from prison and seeks out Ducard. Ducard trains Bruce to become a member of the *League of Shadows*. However, before he can be admitted into the organisation, he must kill a convicted criminal[100]. This act of murder goes against Bruce's morals, resulting in him turning against the *League of*

[99] The first appearance of *Batman* was on 1st May 1939 in the US comic series *Detective Comics* (Misiroglu & Eury, 2025).
[100] It is also during this time that Bruce learns that the *League of Shadows* wants to rid Gotham of all crime through unconventional means – many of which would involve murder.

Shadows, leading to the destruction of the institute and the death of the organisation's leader[101]. Bruce returns to his home city (Gotham) and begins his vigilante rampage in an attempt to purge the city of its crime infestation. Later in the film, it is revealed that Bruce's mentor has returned and has formed an alliance with a psychotic psychiatrist. They plan to poison the city's most criminal hotspots with a hallucinogen, resulting in mass hysteria and death – even the innocent will die, but that is a price they are willing to take. Through various heroic efforts, Batman (Bruce) is able to stop this diabolical plan and save the city, thus becoming the symbol of justice and vengeance in Gotham.

As mentioned, the description above is the *story* of the film, the individual pieces needed to create the narrative. However, the above story is only one way in which the pieces can be arranged and used. By arranging the pieces in a different manner, one is able to create a different version of the same story, i.e. *discourse*. Through the use of *discourse*, the *story* pieces above can be used to create several different representations of the same narrative: instead of following the perspective of Bruce, the same narrative can be told through the focalisation[102] of Ducard. On a larger scale, the narrative's temporal structure can be arranged in various ways, ranging from simplistic to complex. Through the use of *discourse*, the story can be told by first showing the city in a state of hysteria and then jumping between the past, present and future. This requires the audience to piece together the narrative while they are watching it.

Considering the above information, it is clear that narrative time is constructed through the manipulation of the *story* and *discourse* opposition. Understanding this, it becomes clear that theorists took note of these different forms of manipulation and thus began to formulate typologies and theories to better understand narratives. One of the most prominent theorists – mentioned many times in this study as a figure who cannot be overlooked when discussing narrative time – is Gérard Genette.

3.3.1.1 Genette's Theory of Narrative Discourse's Use of Time

The reason why Gérard Genette holds such importance for this study is that his work is generally considered invaluable for the study of narrative time. Genette is one of the major figures – Genette shares this stage with figures such as Roland Barthes and Tzvetan Todorov – responsible for stressing the need to investigate literary structures and devices (Culler, 1983:7-8). Genette's shared goal was to create a poetics[103] for literature in the same way as linguistics is for language, therefore attempting "to make explicit the system of figures and conventions that enable works to have the forms and meanings they do" (Culler, 1983:8). As has been seen, Genette would accomplish his goal by focussing specifically on the *story* vs. *discourse*

---

[101] Not to be confused with Bruce's mentor, Ducard.
[102] The point of view through which the narrative is told (Jahn, 2007:94).
[103] The Oxford University Press (2024) defines poetics as "a body of theory concerned with the distinctive features of poetry (or literature as a whole), with its languages, forms, genres, and modes of composition."

relationship within narrative – especially in the novel, which was thought of as the most intricate, complex and involuted of narrative genres[104].

Genette established many theories that are foundational for narratological research, such as focalisation, diegetic levels, mood, voice, and, most importantly, for the purpose of this study, temporal deformation. By studying the different uses of time within narratives, Genette has laid the foundation for our understanding of narrative time and its development, as seen in Herman's theory of polychronic narration, which he states is ultimately an extension of Genette's temporal theory (Herman, 2004:214-220). Here, we can see the reason and importance of discussing Genette's work in such depth. Firstly, it is the most influential and prominent theory vis-à-vis the analysis of temporal deformations in narrative – but one which this study deems as ultimately unable to appropriately analyse the radical temporal deformations found in Christopher Nolan films[105]. Secondly, Genette's theory is the founding theory upon which Herman further develops his own. Therefore, in order to understand Herman's theory in full, Genette's theory should also be understood in its entirety. Thirdly, because Herman's theory only seeks to replace one concept of Genette's work, the other concepts are still applicable and will be referenced when analysing Nolan's films. Lastly, an explanation of Genette's theory is needed because my hypothesis may be revealed as incorrect, i.e. Genette's theory could, in fact, be sufficient in terms of explaining the radical use of time within Nolan's films.

Genette commenced his revolutionary work by analysing the use of narrative discourse in Marcel Proust's[106] novel *A la Recherche du temps perdu*[107] ('In Search of Lost Time'). Genette's book, *Narrative Discourse: An Essay In Method,* was originally published in 1972. Cornell University published his work again in 1980, then again as a paperback edition in 1983, which contained notes by the translator and a forward by Jonathan Culler[108]. As the title of Genette's book suggests, he attempts to achieve what was mentioned earlier: to construct a typology for literature that explains its structure and identifies the elements used to create meaning. This particular work of Genette focuses on the use of narrative discourse by investigating temporal deformations, voice and mood within Proust's novel; thereby establishing a theory that would become an "indispensable tool for students of narrative" – and especially imperative for studying narrative time in stories (Culler, 1983:8). Although voice and mood are of great importance in Genette's work, the focus of this study is on narrative time – more specifically, the radical use of time.

In order to explain the different ways in which a narrative can deviate from the natural order of time (Chronological time, ABC), Genette establishes three ways in which a story can deform narrative time:

[104] According to Culler (1983:9), Genette sought to disprove sceptics who believed that only simple narratives such as folk tales could be provided with a structural analysis.
[105] Chatman (1978:63) emphasises that Genette's temporal theory of *story* vs. *discourse* must form the basis of any research focusing on narrative time.
[106] Proust is considered to be one of the most influential novelists, critics and essayists of the late 19th and early 20th century (Raitz, 2022).
[107] Published in 1913.
[108] This study primarily uses this edition when explaining Genette's work.

order, duration, and frequency. To ensure a complete understanding, I will discuss each deformation individually with examples.

Order

Order – as will be seen when analysing Nolan's films - can be thought of as the element most relevant to temporal deformation or at least its puzzle-like structure. The natural order of a narrative is chronological (Lande, 2005). This, simply put, means that events and their causes follow each other on a neat timeline: event A causes event B, which results in event C and leads to a conclusion at D – the *story* of a narrative. Our interests lie in when this traditional ordering of a narrative becomes disturbed through the use of discourse. Therefore, when studying the order of a narrative, Genette makes clear that it is the comparison of "events or temporal sections [which] are arranged in the narrative discourse with the order of succession these same events or temporal segments have in the story, to the extent that story order is explicitly indicated by the narrative itself or inferable from one or other direct clue" (Genette, 1983:35). In other words, studying the order of a narrative involves analysing how discourse has arranged the story's events in contrast to its natural chronological order (its *story*). Genette classifies any narrative which deviates from a natural sequence as anachronous (Chatman, 1978:64). chapter four will show that order is the primary element of temporal deformation within Nolan's films. Therefore, it is important to understand its purpose, techniques, implications, and original perceived limitations in order to fully understand how Nolan uses this narrative element to take temporal deformation to an extreme.

Genette (1980:35-85) provides an in-depth explanation of how order can be disrupted by classifying the techniques used within narratives to accomplish this goal. Genette refers to these disruptions as anachronies (Genette, 1983:85). There are two main types of anachronies[109] that can be utilised in various ways: analepsis and prolepsis. As will be seen, these forms of anachrony not only form the basis of order alteration in narratives but also have an effect on the elements of duration and frequency.

The surface explanation of analepsis and prolepsis at first appears straightforward. However, as will be revealed, there are various ways in which these anachronies can be used to distort the order of a narrative and, if used skillfully, can create an integrated puzzle-like structure as well as a certain atmosphere or other narrative characteristics[110]. Analepsis is when the discourse intervenes in the narrative's current temporal position to return to an earlier time within the story; this travel to the past may stretch as far back as centuries or only a couple of hours (Bridgman, 2007:57). Using the earlier example of *Batman Begins*, Nolan uses analepsis several times within the film to depict Bruce Wayne's earlier life. This return to the past goes back decades, to the early years of his childhood or only a few years before the present.

---

[109] When referring to both of these anachronies (analepsis and prolepsis), the term 'anachrony' will be used.

[110] This will be discussed when explaining duration and frequency and will, in addition, become evident in chapter four when analysing Nolan's films.

Prolepsis is, simply put, the opposite of analepsis; instead of depicting past events, the timeline jumps forward into the future. During these moments, the discourse "leaps ahead, to events subsequent to intermediate events. These intermediate events must themselves be recounted at some later point, or otherwise, the leap would simply constitute an ellipsis. [Prolepsis] can only be recognised retrospectively" (Chatman, 1978:64). I believe Chatman's explanation of prolepsis requires some refining, not because it is insufficient, but because it may cause confusion when dealing with Herman's discussion of indeterminate events.

It was mentioned in chapter one that Herman's theory of polychronic narration directly investigates "indeterminate" events. As will be discussed further in the section to follow, Herman explains that indeterminate events are actions that are difficult or impossible to place on a timeline (Herman, 2002:212). In the quote in the previous paragraph, Chatman, on the other hand, is referring to events that are not yet recognised to be 'leaps ahead', thus requiring to be recognised as such only at some later time in the narrative; or be classified as ellipsis[111]. To place this into context, let's again take Nolan's film *Batman Begins*. During Bruce's training with Ducard, the story could have used prolepsis by leaping to where the organisation is destroyed. However, the story must either return to the present and continue its natural development or recount these indeterminate events later in the narrative.

Two sub-elements that are found in both anachronies are "reach" and "extent"[112] (Herman, 2002:217). When referring to the reach of an anachrony, Genette (1983:48) explains that it can be thought of as how far into the past or future an anachrony travels from the "present moment". Referring to the "present moment" in the narrative may become ambiguous, especially when dealing with narratives where the "present" is uncertain – this will certainly be the case when analysing *Memento* in chapter four. Genette (1983:48) does slightly expand this statement to offer more clarity: "that is, from the moment in the story when the narrative was interrupted". However, I believe Chatman's (1978:63) concept of narrative "NOWS" to be more fitting. Due to the complexity of certain narratives, there may be various moments that can be considered as the "NOW". For example, if a character were to commence the story by stating he/she would be telling an earlier adventure, this would constitute a "NOW" within the narrative wherein an anachrony – most likely analepsis – would be inserted. On the other hand, the story being told by this character/narrator also contains a narrative "NOW" that allows for the use of anachronies. Returning to the "reach" of an anachrony, once the narrative NOW is interrupted by either analepsis or prolepsis, the measurement of how far that anachrony moves from the narrative NOW can be referred to as its "reach".

Genette (1983:48), defines extent as the duration of that part of the story that the anachrony addresses. This means the reach of an anachrony may be years or only a few hours from the narrative NOW, but the time of the recounted the event could be more or less long. To place this into an example, one of the anachronies

[111] When discussing duration and frequency, ellipsis will be introduced.
[112] Chatman (1978:65) refers to reach and extent as "distance" and "amplitude".

used in *Batman Begins* (in this case, analepsis), reach is a couple of decades where young Bruce falls into a well and is swarmed by bats – the extent of this return is, however, only a few minutes. To provide an example of prolepsis, let's envision a character who is able to receive visions of the future. During the narrative NOW, the main character makes a choice not to approach his love interest. However, before doing so, he sees the future wherein his daily life, from morning to evening, is represented as grey and pitiful. The reach of this anachrony is a few years into the future. However, the extent (the duration of the story) is only twenty-four hours.

Returning to the implementation of anachronies, Genette argues that once an anachrony injects itself into the narrative, its temporal shift becomes subordinate to the narrative's reference point (the NOW) from which it originated; he refers to this reference point as "the first narrative" (Lande, 2005). In other words, the NOW becomes the first narrative level, and any anachrony becomes the second. As can be imagined, this can become complex once there are multiple embedded narrative levels – a strong possibility with Nolan's films. A discussion of narrative levels is, however, not required at this stage as it reaches beyond what is required to understand the basic, necessary components of Genette's theory[113]. Instead, I will continue by introducing the various ways in which analepsis and prolepsis can be implemented in a narrative.

Having introduced a surface explanation of analepsis and prolepsis and their shared traits, a further expansion on the different ways they are implemented is needed.[114] Staring with analepsis, Genette (1983:48-50) provides three types: external, internal and mixed.

External analepsis is the most basic type, as it is simply a return to the past that recalls information before the first narrative (NOW). Its purpose is not to interfere with the first narrative's temporal field as its reach begins and ends before the NOW (Chatman, 1978:65). Instead, its function is to provide information by "enlightening the reader [or viewer] on one or another 'antecedent'" (Genette, 1983:50). A character sitting at a bar reminiscing about fishing with his father (the second narrative) does not interfere with the temporal NOW. The reach and extent end before the first narrative. The return to the temporal NOW does not necessarily mean a return to the moment where the man is sitting at the bar. It could return to a time and space in the first narrative where the man is having dinner with his family. The main factor is there is a return from the past (the second narrative) to the first narrative without any interference.

It may be worth noting again that Genette's theory was developed by analysing a novel. Certain instances of analepsis and prolepsis in written texts do not have to involve a 'full' change in time and space, as seen in

[113] If one of these components are mentioned, an explanation will be given.
[114] This may seem too much, considering Genette's theory is not this study's focus. However, it needs to be emphasised again that it is important to understand Genette's theory in full because Herman's theory of polychronic narration is an extension of Genette's anachronies. When analysing Nolan's films, Genette's distinctions will still be applicable when narrative time is not indeterminate. Genette's terminology will thus be used in many cases where it is applicable.

films' flashbacks and flashforwards[115]. A mere reference to the past that is described in a few sentences can be considered an analepsis. In fact, Landa (2005) states that any story element – such as a work of art depicting a past/future event – could signify a temporal moment.

Mixed analepsis is similar to external analepsis as they both return to the first narrative. The difference is that mixed analepsis returns to the exact moment of interjection in the first narrative. Mixed analepsis can also be split into two categories: partial and complete. Partial mixed analepsis is when an analepsis is interrupted, thus only providing an isolated piece of the past before returning to the first disrupted narrative. Therefore, the analepsis ends on an ellipsis.

Complete mixed analepsis is when the retrospection ends at the moment the first narrative is interrupted – all the "antecedents" leading up to the first narrative are portrayed – thus making a full circle (Genette, 1983:62-67). In both cases, the first narrative can resume its development with or without recognition by the narrator of the analepsis (Genette, 1983: 64-65). This, simply put, means that the narrator can indicate the return to the first narrative by saying something along the lines of "we now return to our current adventure" or by continuing the actions that took place before the analepsis was injected: once the reminiscing of the man at the bar has completed, the story narrates him finishing his drink and leaving.

Contrary to external analepsis, internal analepsis shares the same temporal field as the first narrative – it is embedded in the temporal field of the first narrative – and may, at times, interfere with it. Internal analepsis is more problematic than external analepsis as there are a few more components that need explanation. Internal analepsis can be separated into two kinds: heterodiegetic and homodiegetic[116].

Heterodiegetic internal analepsis deals with past information that is separate from the first narrative. Its purpose is to provide "antecedents" of a newly introduced element, character or someone who has been absent from the narrative for a long period of time (Genette, 1983:50). To explain this in simpler terms, think of the example used above. After a narrator has described the man as reminiscing about his father, he/she may introduce another character, a friend of the man. Before any interaction takes place, the narrator first discusses the friend's past – this is a separate storyline. Thus, it sheds light on the events (years ago or recently) that provide the reader/viewer with context. This information, "diegetic content", is however separate from the first narrative. This form of internal analepsis does not traditionally interfere with the first narrative's storyline; they merely share the same temporal NOW.

[115] It will be seen later that film also possesses a unique quality that allows it to use anachronies without changing time and space.

[116] These are two terms that link to the narrative levels mentioned earlier. Heterodiegetic narratives are stories where the narrator is not part of the story – this is seen in third-person narratives. Homodiegetic narratives are stories where the narrator is part of the story, such as first-person narratives (Fludernik, 2005:38)

Internal homodiegetic analepsis, on the other hand, stands a high risk of interfering with the first narrative as they share "the same line of action as the first narrative" (Genette, 1983:51). The claim that it shares the same line of action is at first confusing: how can an action share two temporal positions. What I believe Gennet is referring to here is that unlike the previous forms of analepsis discussed above, internal homodiegetic analepsis has a direct, unavoidable interference with the first narrative's storyline and course of events. This is because the narrative is structured with "gaps" that need to be filled in order to understand the first narrative. These "gaps" are filled by using either completing or repeating analepsis (Genette, 1983:51).

Completing analepsis is also referred to as "returns". Its purpose is to provide information on earlier events (gaps) in the storyline that are important to the first narrative. According to Genette (1983:51-54), these gaps are different forms of ellipsis (pure ellipsis, paralipsis, and iterative), each having a different effect on the narrative. I do not believe it is necessary to provide a detailed explanation of each. If such forms of ellipses appear in Nolan's films and contribute to the evidence of radical temporal distortion, I will provide a brief explanation. What is important to note with completing analepsis is that there is a return to past events that directly interfere or correlate with the events taking place in the first narrative by providing information that is important to the development and understanding of the story.

Repeating analepsis is similar to completing analepsis in the sense that it recalls earlier events in the narrative. However, this is not merely to provide the context needed to move the first narrative forward but, in addition, to attempt to understand the events that led up to the temporal NOW. Herman (2002:217) explains this well by saying, "[…] the narrative explicitly retraces its own path. Such narrative manoeuvres encourage a re-viewing of the past through the lens of the present (and vice versa). Sometimes, they even erode the boundary between what has happened and what is happening." Genette (1983:54-55) confirms this by stating that "recalls" are caused by comparing the past to the present, predominantly associated with memories of trauma and pain. As the name suggests, repeating analepsis also entails returning to the same past event multiple times, often from a different perspective or with added information in order to understand the situation of the first narrative (Chatman, 1978:65). An excellent genre for this type of analepsis would be detective fiction, which usually begins in *medias res*. In detective films, it is common to see repeating flashbacks (analepsis) from the first narrative's temporal NOW. These flashbacks would repeatably focus on a certain event (the murder of one of the characters), usually from various perspectives in order to obtain information. The information gathered from these repeated flashbacks has a direct impact on the first narrative as it serves to answer how the current circumstances came to be.

As seen above, analepsis can be complex and have various modes of application. Defining analepsis as merely shifting time to the past with a return to the NOW would be an injustice to a study that specifically aims to analyse the intricate use of narrative time. As will be seen in chapter four, these terms and the ones to follow will be utilised.

Having discussed the use of analepsis in full, an explanation of the various modes of application of prolepsis can commence. As has been mentioned, prolepses occur when there is an interruption in the first narrative by leaping forward in time, thus portraying events that are yet to happen chronologically-speaking. According to Lande (2005), prolepsis is not as widely used as analepsis. However, its effect on narrative storytelling should not be underestimated. Through the use of prolepsis, a narrative can create expectation, curiosity and suspense (Lande, 2005). In addition, prolepsis can emphasise the narrative's puzzle-like structure by posing questions such as how and why these events occurred (Herman, 2002:217). Prolepsis also possesses the same applications mentioned in analepsis (external and internal), with an added quality specifically seen in detective fiction. This is commonly referred to as snares, where the narrative claims something will happen or be the reason behind a certain action, only to be false (Genette, 1983:77).

Considering the above information, it is evident that anachronies (analepsis and prolepsis) are two fundamental techniques that alter the structure (order) of a narrative. However, there arises an issue when these anachronies alter the order of a narrative to such an extreme that defining its temporal movement, as seen above, becomes a daunting task with no clear answer. Genette defines such instances as achrony. These undiscernible events are precisely what this study intends to investigate and are the primary focus of Herman's theory of polychronic narration. It will be seen that within the selected Nolan films, these instances of achrony are evident in various instances and degrees. However, as will be seen in the following section (3.3.1.2), Herman argues against Genette's definition of achrony. Before I get ahead of myself, Genette's explanation of achrony needs to be discussed in order to properly understand Herman's arguments against it.

Genette does not spend much time explaining achrony in comparison with anachronies – his explanation's extent is four pages, which may simply be the result of not being able to appropriately understand these radical time deformations. In fact, achrony is neglected by many who discuss Genette's temporal theory or is provided with a limited definition: Lande (2005) does not mention achrony and Chatman – although he does spend some time providing examples – explains achrony simply as "[allowing] no chrono-logical relation (even inverse) between story and discourse. The grouping is either random or based on principles of organisation appropriate to other kinds of texts – spatial proximity, discursive logic, thematics, or the like" (Chatman, 1978:65). While discussing anachronies themselves, Genette mentions certain instances where there is evidence of events being indiscernible in terms of time:

> The first temporal section of the *Recherche*, which occupies the first five pages of the book, evokes a moment that is impossible to date with precision but takes place fairly late in the hero's life […] (Genette, 1983:43)

> […] the end of Marcel's passion for the Duchesse de Guermantes, thanks to the quasi-miraculous intervention of his mother, is the subject of a retrospective narrative with no specific date […] (Genette, 1983:57).

For Genette, these instances make it a difficult task to discern the proper use of analepsis and prolepsis as well as instances where the past alludes to the future (analeptic prolepses) or the future referencing the past (proleptic analepses): "[these] are so many complex anachronies, and they somewhat disturb our reassuring ideas about retrospection and anticipation" (Genette, 1983:83). Genette determines that these cases, events which cannot be given an earlier or later placement on the timeline of the narrative (to be unplaceable), belong outside the temporal field of the narrative; that they are "atemporal". Therefore, Genette comes to the conclusion that these events should be considered "dateless and ageless: to be achrony" (Genette, 1983:84).

As can be seen above, a full definition and expansion of such a complex phenomenon in literature is lacking. Surely, these events, which promise much more analytical value to the narrative, cannot be thought of as merely "dateless and ageless". This temporal aspect within Genette's revolutionary work does not provide a proper explanation for such indeterminate events, which, as will be seen in section 3.3.1.2 and in chapter four, are the direct result of representing certain narrative themes, motifs; and are the reason behind the creation of the engaging puzzle-like structures that Nolan is renowned for. Therefore, it can be argued that Genette's temporal theory is incomplete and cannot fully explain narratives that contain instances of "achrony". Hence, the reason why I argue that Herman's theory of polychronic narration should be applied to Nolan's films instead of being simply defined as achrony in Genette's terms.

Duration and Frequency

Before we continue to broaden our understanding of narrative discourse's use of duration and frequency to aid in deforming a story's chronological order, it is beneficial to briefly mention how film has specifically adopted what has been mentioned thus far. Within many works discussing Genette's theory in relation to film (Lande, 2005; Phelan & Rabinowitz, 2005:35; Bridgeman, 2007:57), analepsis and prolepsis have taken on the largely adopted terms of 'flashback' and 'flashforward'. These now 'household' terms were originally created by filmmakers to designate

> […] a narrative passage that 'goes back' but specifically visually, as a scene, in its own autonomy, that is, introduced by some overt mark of transition like a cut or a dissolve. It is not correct to refer to traditional summary passages as 'flashbacks.' Flashbacks and -forwards are only media-specific instances of the larger classes of analepsis and prolepsis. (Chatman, 1978:64)

From the above passage, it is clear that Chatman has a strong opinion on the terms "flashback" and "flashforward" being limited to the cinematic medium. I concur with Chatman on this stance. As stated earlier, analepsis or prolepsis in a written form do not always constitute an 'full', actual change in time and

space. On the contrary, when referring to flashbacks and -forwards in film, the reference designates an actual visual change in time and space. Chatman also states that film has the unique ability to create partial or split flashbacks. This occurs when "two information channels, visual or auditory, may be kept in the present and the other flashbacked" (Chatman, 1978:64). The technique that is used is commonly referred to as voice-overs. These voice-overs can introduce the scene, interrupt the events or merely narrate the current thoughts or actions of a specific character or event. Chatman (1978:64) describes its use for flashbacks when the narrative shifts to a time and place in the past; however, the voice-over (narrating) is contemporary – or in the first narrative (NOW), as discussed earlier. Voice-overs can also utilise flashbacks by presenting the NOW with "sounds flashing back"; although this is rarely used (Chatman, 1983:64).

There is no mention of voice-overs or other auditory elements being used in a proleptic sense (partial flashforward). However, I am positive that this is at least a possible occurrence. Let's take, for example, a film in which a man constantly hears the sound of an oncoming train, but there is none in sight. This sound at first seems random; however, later in the film, the man suffers a tragic loss when his son falls onto the train tracks. The sound is revealed to have been an indication of a future event, a partial flashforward.

Returning to the various ways in which a narrative can deform its chronological order, duration will be discussed next. It will be seen that the elements of duration and frequency are interlinked with order – most of their characteristics are implemented during analepsis and prolepsis and, in many cases, serve to emphasise the impact of the anachrony. Puckett (2016:265) argues that Genette's work should be thought of as a series of relations: "attending to one of its categories often if not always requires that we turn to others at the same time."

It was mentioned earlier that analepsis and prolepsis, as well as the various ways in which they can be implemented into a narrative, are referred to as anachronies. This is also evident in Duration (sometimes referred to as the speed of a narrative), as the various ways in which it can be applied to a narrative are referred to as "anisochronies" (Lande, 2005). Herman (2004:215) provides an excellent definition of duration: "the telling [of a narrative] can have more or less duration with respect to the told; that is, the discourse can proceed at a faster or slower pace than that of the story."[117] Genette classifies four forms of duration: summary, ellipsis, pause and scene. A fifth aspect of duration that Chatman distinguishes vis-à-vis film will also be examined.

Summary, as the name suggests, occurs when multiple events or a period of time are shortened (summarised) into a few words. Therefore, discourse-time is slower than story-time (Puckett, 2016:217). When this occurs in the written form, there are several ways in which grammatical and lexical features can implement a summary. Chatman (1978:68) provides a number of examples with emphasis on verb usages, such as durative verbs and adverbs. Two examples of this could be "This study took two years to complete" or "I

[117] Puckket (2016:217) states that this is also referred to as story-time vs. discourse-time, which I find more appropriate.

tried to understand Nolan's films time and time again." Although the different usages of summary are certainly interesting, its use in film should be the main focus.

According to Chatman (1978:69), at the time of writing, the use of summary in film was problematic, requiring directors to "resort to gadgetry." It is uncertain what is meant by "gadgetry"; rather, I would claim that in order to represent a summary, directors implemented specific cinematic techniques. The first that comes to mind is the use of montage. As has been stated, montage is how a film represents a narrative; the shifting from scene to scene. However, the form of montage used to summarise would be far more radical in its structure. By this, I mean that the events the film intends to summarise would shift (or cut) between past scenes in a fast manner, thus only providing (a) quick isolated piece(s) of information. This process would usually be accompanied by continuous music (Chatman, 1978:69). I believe this specific technique could be used to showcase past events or future events. In this instance, we already see the link between the various anachronies mentioned earlier. Of course, there are other ways in which summary could be implemented in film. As with written texts, a summary can be found in dialogue or voiceovers. Additionally, directors may implement unique ideas such as pages ripping off a calendar or piling up newspapers to indicate a long period of time has passed.

The use of ellipsis was mentioned earlier as a means through which order can be deformed. In this mode of duration, *discourse-time* is nonexistent while *story-time* continues (Genette, 1983:106). There are no descriptions of these excluded events; for the reader or viewer, these instances do not exist until the narrative decides to disclose them. An ellipsis can be either explicit when the narrative indicates a shift in time or implicit when the narrative provides no indication of ellipsis; *the story-time* continues as if nothing occurred (Puckett, 2016:271). It may be beneficial to briefly explain the various types of ellipsis. The first is pure ellipsis, where a retrospection occurs in order to fill in an earlier gap in the narrative: a character entering a hospital might describe a memory from several years ago when he was admitted into the same hospital. This form of ellipsis is present in completing analepsis as discussed earlier.

A form of ellipsis also found in completing analepsis is paralipsis. In this case, an event or even character is purposefully excluded during the recounting of past diegetic content. Genette (1983:52) explains this as "the elision of a diachronic section by the omission of one of the constituent elements of a situation in a period that the narrative does generally cover" and "the narrative does not skip over a period of time, as in ellipsis, but it sidesteps a given element." As seen with analepsis, this could be prominent in detective narratives, where specific elements are purposefully excluded and recalled later. Paralipsis could also be used to uncover traumatic events experienced by the character that he/she either wishes to forget or cannot fully recall due to it being too distressing (De Villiers, 2005:130). It can be seen how this form of ellipsis falls under completing analepsis as it attempts to fill in these narrative gaps. It will be seen that this form of ellipsis will be evident in Nolan's films and may be revealed to be used to such an extent that the temporality of the narrative will be confirmed as polychronic. These seemingly simple distinctions (of duration and

frequency) may reveal vital aspects when used in conjunction with a theory of anachrony that reveals a narrative as polychronic.

The last form of ellipsis is iterative, which deals "not with a single portion of elapsed time but with several portions taken as if they were alike and to some extent repetitive" (Genette, 1983:53). Let's take, for example, a student who attends the same class every morning and takes the same bus. When the narrator recounts the monotonous bus rides to class, he may do so only once; thus, whenever there is a return to the school setting, the narrator does not mention the boring bus ride – that part of the student's daily routine is excluded.

Considering the above information, it can be seen how ellipsis forms part of the duration/speed of the narrative. By excluding certain parts of the narrative that would be redundant, the story progresses at a faster rate. However, it may also be used strategically by creating a puzzle-like structure that requires the reader to fill in gaps, or it may emphasise certain qualities within a character.

The use of pause can be thought of as the direct opposite of ellipsis. Instead of discourse-time being absent, story-time comes to a standstill. According to Puckett (2016:271), this is a rare occasion in which there is discourse-time without story-time. These instances can be thought of as descriptive sections, where there is no movement or action (Puckett, 2016:217). Instead, discourse takes over by describing a certain element of this story: a character or setting, for example. Although this is certainly present in written texts, it may not be possible in films. According to Chatman (1978:74), the ability of film to completely halt story-time while discourse-time continues is generally impossible: "story-time keeps going as long as images are projected on the screen, as long as we feel that the camera continues to run." While this is predominantly the case, one of the techniques in film is freezing an image, essentially becoming a photo of some sort. Once this happens, a film can insert a voice-over where the narrator describes the scene. In this case, there is no continuation of events, only description. Therefore, we can argue that a pause has occurred where story-time is stopped while discourse-time continues.

The last of Genette's distinctions pertaining to the duration of a narrative is scene. A scene in a narrative is the closest a story can come to imitating the temporal movement of reality. This is because a scene is composed of the narrative's dialogue and actions where *story-time* is equal to *discourse-time* (Chatman, 1978:72). In a scene, however, summary, pause and ellipsis can be present (Puckket, 2016:271). A dialogue can summarise events, the thoughts of a character can pause the narrative, and information can be left out or skipped over. A scene in a film can be present in voice-overs. During a scene, Genette (1983:109) argues that the most intense moments can arise or the most rudimentary information can be summarised.

The last aspect of duration introduced by Chatman specifically for film is referred to as "stretch". In this instance, discourse-time is longer than story-time (Chatman, 1978:72). This form of duration is common in

the film industry where it is known as "slow motion." I do not believe there is much to explain about this technique. Depending on the image being in "slow motion", its purpose varies from emphasising an important action that relates to the theme or motif of the narrative or simply to create suspense.

Reaching the end of Genette's temporal theory, frequency is the last element of story vs. discourse that needs to be discussed. Frequency in a narrative is when an action or event is depicted multiple times in the story (Genette, 1983:113). Although this may seem like an unimpactful discourse element, its usage within a narrative could be the difference between a rather simplistic temporarily ordered narrative or a radical one. Herman (2004:216) does not underestimate frequency. He states that it can be used to emphasise an important action or event that would otherwise be neglected. Genette classifies three instances of frequency: singulative, iterative and repeating narratives (Lande, 2005).

The first two types of frequency are relatively simple. Singulative frequency is when the portrayal of a story event or action is equal to the discourse representation: event X is only shown once[118] (De Villiers, 2005:147). An iterative instance is when an event that is said to occur multiple times is only narrated once (Puckket, 2016:273). An example would be "I work every night on my dissertation." The last type of frequency, repeating narratives, holds the most interest as it involves repeating an event or action multiple times (Lande, 2005). This will certainly be evident in many cases when analysing Nolan's films in chapter four. In fact, Puckkett (2016:273) states that this type of frequency is found mostly in experimental and time-travel narratives. Although there is no mention of this frequency's ability to create a puzzle-like narrative when used in conjunction with all the above-mentioned elements of temporal deformation, it will be seen that this will be the case when analysing Nolan's films.

3.3.1.2 David Herman

In the previous section, it was shown that Genette was and is currently a major figure in the discipline of narratology. His work's impact on modern-day narrative analysis was shown to be revolutionary, making it a staple for any student investigating the intricacies of narrative. Indeed, nothing less could be said about our second literary theorist, David Herman.

It was argued by Chatman (1978) and Culler (1983), as noted in section 3.3.1.1, that Genette cannot be excluded from any study dealing with narrative analysis. The same can be said about Herman with regard to postmodern narratology. Herman is a leading figure in modern-day narratology with publications such as the *Routledge Encyclopedia of Narrative Theory* (2005), where he is co-editor, and *The Cambridge Companion To Narrative* (2007), where he is the sole editor. Herman, of course, has his own chapters in these books but

[118] Genette splits singulative frequency in two by claiming there are anaphoric singulative instances (De Villiers, 2005:148). In this instance, the focus is not on the number of times an event or action is repeated but on their shared equality. Genette (1983:115) provides the example, "Monday, I went to bed early, Tuesday I went to bed early, Wednesday I went to bed early, etc."

also features in other influential books such as *The Handbook of Narratology* (2009) and *A Companion To Narrative Theory* (2005). Within these books, Herman addresses many aspects relating to narratology: in *A Companion To Narrative Theory (2005)* and *The Cambridge Companion to Narrative* (2007), he provides an introduction to the history and development of narratology. However, Herman's specific expertise lies in cognitive narratology; within each of the above-mentioned books, Herman provides the section/chapter on cognitive narratology. Herman continues to develop this field within narratology by publishing works such as *Narrative Theory and The Cognitive Sciences* (2003), *Cognitive Poetics: An Introduction (2006), The Emergence of Mind: Representations of Consciousness in Narrative Discourse in English* (2011) and more recently, *Storytelling and The Sciences of Mind* (2017).

Although it seems that Herman's interests lie heavily in specifically developing cognitive narratology, his knowledge and contribution to narratology as a whole are unquestionable. This is evident in his book *Story Logic: Problems and Possibilities of Narrative* (2002), in which Herman expands and develops established theoretical approaches to narrative analysis through his understanding of cognitive narratology. One of the established theoretical areas he seeks to develop is the analysis of narrative time, wherein his theory of polychronic narration is presented. It is this book, specifically the chapter dealing with "Temporalities", that will be used to present and explain Hermans's theory of polychronic narration; and thereby, providing the last bit of information needed to undertake chapter four (the analysis of Nolan's films) and thus tying together the arguments made thus far: that Genette's temporal theory – the predominant theory used when analysing the relationship between the *story* vs. *discourse* distinction and temporal ordering – and specifically his classification of achrony, does not adequately account for the radical use of time within selected Nolan films. Before we begin to address and explain his theory, however, it may be beneficial to disclose the overall purpose of Herman's book. In doing so, a broader understanding of how his polychronic theory fits into the overall purpose of the book, as well as the impact it has had in the field of narratology, will be provided. I believe Herman's first introductory paragraph achieves its purpose by being the best explanation of the book's intention:

> In this book I develop a broad interpretation of narrative as a discourse genre and a cognitive style, as well as a resource for literary writing. I also work toward an account of narrative understanding as a process of building and updating mental models of the worlds that are told about in stories. In other words, story recipients, whether readers, viewers, or listeners, work to interpret narratives by reconstructing the mental representations that have in turn guided their production. This amounts to claiming, rather unspectacularly, that people try to understand a narrative by figuring out what particular interpretation of characters, circumstances, actions, and events informs the design of the story. But though this last formulation may appear almost tautologically obvious, I believe that, in actual fact, a number of extremely complicated issues are concealed within its surface simplicity – issues that I can only begin to address in the present study. (Herman, 2004:1)

I have decided to provide such a large quote because Herman's direct words explain his intention in a way that directly relates to many of the arguments made in this study. Within the first sentence of this quote, Herman argues that narrative is a discourse genre. This correlates with what has been stated throughout this study: that any narrative contains *discourse*. However, the main argument in this study is that current narratives (specifically Nolan's) have utilised *discourse* in unique ways, thereby causing radical time deformations that require updated theories and accompanying analytical frameworks. Also, Herman argues that narrative *discourse* is a resource for literary writing, which is precisely the focus of this study: the use of *discourse* within narratives to deform their temporal order. On top of this, this study has argued that the use of temporal deformation leads readers/viewers to puzzle together events and actions in order to fully understand the narrative. This is evident within Nolan's films to the degree that many refer to him as a puzzle master whose movies are examples of "complex, multi-layered storytelling" (Parkinson & Labrouillére, 2023:1).

Lastly, I have stated throughout this study that previous 'mainstream' temporal theories - specifically Genette's notion of achrony – lack the ability to analyse Nolan's films. Overall, the pattern in film studies seems to point to the fact that established theories are easily used to study *discourse's* creation of a narrative in which the participation of the reader/viewer is simplistic and easily investigated. Surely, by this point in the study, it has been shown that this is strongly argued against. I will acknowledge that not all narratives contain the unique use of *discourse* as investigated in this study; therefore, the argument that a viewer's "reconstruction of mental representations" in certain narratives is simplistic does hold validity. Herman claims in the above passage that within this supposed simplicity, a number of extreme complexities can be found. It will be seen that these complexities are not hidden within Nolan's films; instead, they are at the forefront and play a vital role in understanding the films' messages and themes. Considering this information, it can be seen why Herman and his theory have been chosen to best examine and explain the radical use of time within Nolan's films: he acknowledges that narrative is a *discourse* genre, he seeks to update theories to better understand narrative worlds, and he gravitates towards a full explication of the reader/viewer's ability to construct a narrative through the events and action represented to him or her.

It is evident that Herman's expertise in cognitive science plays a large role in his thinking. However, as I mentioned earlier, he has a deep understanding of narratology as a whole, which he uses in conjunction with cognitive science to formulate his theories and arguments in an attempt to "characterise, in ever more precise ways, what narrative is and how people go about understanding it" (Herman, 2004:2). The task of revising and improving theories that are fundamental to our current understanding of what narrative is and how we analyse its structure and techniques is certainly ambitious. Herman's plan for achieving such a task is to focus on the relationship between existing narrative theory, linguistics and cognitive science. Herman is specifically focused on reassessing linguistic models constructed by structuralists that have been widely adopted by narratologists for the purpose of creating narrative theory – and this in the light of modern research in narrative analysis, specifically those incorporating methodologies from the cognitive science

(Herman, 2004:2). It is, of course, no surprise that Herman is challenging linguistic models adopted by narratology, or what he calls structuralist narratology, as these methodologies are predominantly used for modern narrative analysis; methodologies which he seeks to improve by providing alternative approaches that allow for "refined interpretive skills" (Herman, 2004:2). One of these improvements is the analysis of temporalities.

The above information I have provided on the purpose of Herman's book is extremely brief in comparison to the detailed outline wherein he argues that language and narrative should together be thought of as elements of cognitive science. Explaining his entire approach, investigated areas, and background context would be superfluous and beyond the scope of this study. However, I will mention the key points of his book. This is firstly because I believe this will emphasise again that Herman is well-versed in all aspects of narrative theory. Secondly, the contents of this book directly investigate modern narrative theories from all avenues to achieve the advancement of our understanding of narrative.

Herman structures his book into two parts: narrative microdesigns and narrative macrodesigns. These two categories serve to group together the elements found in a narrative in order for a reader/viewer to understand what Herman refers to as a storyworld. According to Herman (2004:4-6), a reader/viewer engages in a complex cognitive process in which he/she attempts to understand a narrative by interpreting "textual clues and inferences", presented to him/her in order to allow him/her to (re)construct the storyworld. To understand exactly what Herman means by this, he defines storyworlds as

> Mental models of who did what to and with whom, when, where, why and in what fashion in the world to which recipients relocate – or make a deictic shift – as they work to comprehend a narrative. As a special type of mental or discourse model (the latter term borrowed from research on linguistic pragmatics and natural language processing), storyworlds, again, can be viewed as global mental representations enabling interpreters to draw inferences about items and occurrences either explicitly or implicitly included in a narrative. (Herman, 2004:9-10)

In other words, narrative micro/macrodesigns are the components found within a narrative that help the reader/viewer (re)construct a storyworld. Herman (2004:10) acknowledges that this concept opens up many questions, which he addresses and expands upon in the introduction and throughout his book. Although the argument of narratives being defined as storyworlds (re)constructed by recipients through the interpretation of presented narrative designs is alluring – and would be a valuable addition to our previous section on defining narrative – it is beyond the focus of this section. Rather, let's momentarily examine what exactly Herman defines as micro/macro narrative designs.

Narrative microdesigns are described as the "local level", which primarily deals with "coding strategies used to apportion particular facets of storyworlds into *states*, *events*, and *actions*" (Herman, 2004:6). What is important to know is that these microdesigns are "small designs" which orient the viewer/reader in the

storyworld. Examples of these designs are verb semantics, scripts, schemata, participant roles, action structures and certain dialogues and styles (Herman, 2004:6-7). These are narrative elements that can be thought of as affecting the storyworld on a local or partial level. This is in contrast with narrative macrodesigns, which deal with "large design principles" (Herman, 2004:7). These narrative elements are not concerned so much with isolated aspects found in the storyworld but rather with "the overall contours, the dominant 'feel', of the storyworld being mentally modelled" (Herman, 2004:7).

Thus, narrative macrodesigns are the determining narrative elements found in a storyworld; those that govern its overarching structure, atmosphere, themes, perspectives and recipient interaction. Micro narrative designs are the small-scale building blocks of the narrative which can be isolated –examples are a singular event, a specific action of a character and a character's role – as well as how these blocks are presented. These microdesigns are, however, contained in the narrative macrodesigns, which have a direct effect on them and the overall storyworld. Herman designates four macrodesigns: *Contextual Anchoring*, *Perspectives*, *Spatialization* and, most importantly for this study, *Temporalities*.

Herman's chapter on temporalities directly investigates the use of radical time (as seen in Nolan's films) found in certain narratives. Herman argues, just as this study does, that currently applied theories (e.g. Genette's notion of achrony) do not adequately analyse instances of radical temporal deformation. Therefore, Herman sets out to achieve what was mentioned earlier – providing alternative theoretical concepts to improve and advance current narratology – for example by creating a theory that better examines instances of radical time in narratives: *Polychronic Narration*. This study believes that Herman's theory will indeed supplement Genette's theory of achrony, thus providing us with a theory that can more adequately analyse the radical use of time within selected Nolan films.

Polychronic Narration

Herman commences his chapter on temporalities by confirming much of what has been stated throughout this study: structuralists are responsible for developing many of the narratological theories used today, and the distinction between story vs. discourse is a fundamental aspect of narrative analysis (Herman, 2004:211). Another claim Herman makes that this study has showcased is that although research on the relationship between story vs. discourse has continued to grow, previous distinctions need to be revisited and revised; and new areas of applicability need to be investigated (Herman, 2004:211). The two examples that this study has brought to light that link with Herman's claims are the (mistaken) notion that films do not contain *discourse* (section 3.1.3) and that the study of the use of time in *discours*e has not been fully examined (section 3.3).

Herman is quick to point out that the link between the story vs. discourse distinction and narrative time requires revisiting and adaption: "theorists have disagreed about the best way to label the differences between the chronological series of events recounted in a story and the manner in which those events are

organised in the recounting" (Herman, 2004:214). After this statement, Herman briefly summarises several theories that support his claim of narrative time having been investigated from competing angles. However, agreeing with what this study has mentioned multiple times, Herman admits that during this utopian era of narrative research[119] classical methods were successful in "demonstrate[ing] how storytellers exploit different ratios between story-time and discourse-time to create different narrative effects". Not surprisingly, Herman states that the specific classical method that by far influenced our understanding of narrative time the most was Genette's *Narrative Discourse: An Essay In Method* (1972).

Herman introduces Genette in a manner similar to that seen in this study by stating that his theory originally discussed the relationship between *story*-time and *discourse*-time. Afterwards, he discusses Genette's classifications of duration, frequency, and order, which have already been addressed in depth in section 3.3.1.1. Herman does not spend considerable time explaining these classifications as his concern lies specifically with Genette's notion of achrony. Herman (2004:212) agrees with the argument I have made concerning achrony: "there has not been enough attention given to these instances where events in a narrative seem to have no discernible place on a timeline." Instead of neglecting the importance and impact of such events, Herman begins to formulate his own theory that better addresses this unique use of narrative time.

Herman commences by stating that he believes that certain narratives exploit what he calls "fuzzy temporality", which involves "temporal sequencing that is strategically inexact, making it difficult or even impossible to assign narrated events a fixed or even fixable position along a timeline in a storyworld" (Herman, 2004:212). Within this small passage already lies an important shift in how unplaceable events are perceived. Instead of regarding them as "timeless and dateless" and simply belonging to the "atemporal", Herman argues that these events are used strategically in a cognitive manner that is important when attempting to (re)construct the storyworld of the narrative. Not only this, but if we acknowledge the use of "fuzzy temporality" as a strategic element of narrative, we are able to push the possibilities and limits of narrative order and storyworld (re)construction. According to Herman (2004:212), narratives that contain "fuzzy temporality" should be referred to as using a polychronic style of narration.

As will be seen in Chapter 4, some of Nolan's films contain precisely what Herman calls "fuzzy temporality" and, therefore, will be argued as being polychronic. These forms of "fuzzy temporality" can vary in degree, which will be evident in Nolan's films, and are explained in depth by Herman as being forms of polychronic narration. As was seen in section 3.3.1.1, when examining Genette's temporal theory, the analysis of time in narratives can be complex. Herman's theory of polychronic narration is no exception, especially considering the fact that it addresses and updates an already complex concept of narrative time. Understanding this, what follows is an explanation of Herman's theory aiming to provide a clear foundation for analysis in Chapter 4.

[119] According to Herman (2004:3), once narratologists saw linguistics as a "pilot-science", there was a surge of research devoted to narrative theory, what Herman refers to as "methodological utopianism."

Before addressing the various forms of polychronic narration, it may be best to briefly provide a general explanation of what exactly polychronic narration encompasses. Herman provides a straightforward definition of polychronic narration at the start of his chapter. However, he expands this definition through his analyses of texts.

As mentioned earlier, certain narratives are arranged in an inexact fashion. When this form of ordering is exploited, certain events resist being given a definitive place on the storyworld's timeline. Herman (2004:212) labels these events as "indeterminate" and claims that a storyworld's indeterminacy can vary in use and degree. When a narrative's storyworld contains these instances of indeterminacy, Herman claims it engages in a polychronic style of narration wherein its temporal structure contains three orders: *Earlier, Later* and *Indeterminate* - "where, again, Indeterminate is shorthand for Indeterminately-situated-vis-a-vis-some-temporal-point-X" (Herman, 2004:212). Therefore, polychronic narration specifically focuses on these indeterminate instances, the various ways they are implemented and their effect on the narrative.

Although this inexactness of order was hypothesised by Genette[120], the latter does not appropriately address its full complexity, as seen below. Herman argues that "not knowing the exact temporal position of several events occurring within a larger narrative sequence does not make those events achronic [timeless]" (Herman, 2002:219). As seen in section 3.3.1.1, Genette categorised these events as belonging to the atemporal, essentially separating them from the storyworld's timeline, thus indirectly classifying these events as unimportant to the overall analysis of the text. Opposing this, Herman does not separate these events from the overall timeline and, in this manner, reveals the influence they possess. Instead of separating these indeterminate events from the timeline, Herman argues that a reader/viewer needs to activate two preference rule systems when attempting to (re)construct a storyworld:

> The first rule: Use a bivalent temporal system to read later events as effects of earlier events and earlier events as causes of later ones. The second rule: Use a multivalent temporal system to read some events as indeterminate, that is, as occupying an inherently vague position on the chain of causes and effects undergirding the story, such that an effect might precede its cause. (Herman, 2004:225)

By cueing a reader/viewer to activate these two preference rules, indeterminate events are not restricted to being atemporal/timeless. Instead, they occupy a vague position on the storyworld's timeline. It will be seen that the extent of this vagueness (Indeterminacy) differs based on the different forms of polychronic narration used. By classifying events as indeterminate and examining the kind and degree of polychronic narration used, one will be able to provide a more comprehensive analysis of a text. This will be evident

[120] Currie (2007:37), for example, encounters this problem when discussing Genette's anachronic distinctions. In his section devoted to prolepsis, he claims that the novel *Waterland* cannot be labelled anachronous because it is not a "novel that can be clearly enough divided into past, present and future to make the idea of prolepsis meaningful."

when discussing the example texts Herman uses, wherein it will be seen that polychronic narration can be a vital strategy used by a narrative to emphasise its core themes.

Having understood the overarching definition, purpose and use of polychronic narration, we can now begin to narrow down our examination of polychronic narration by investigating its main two sub-modes, as well the different ways such indeterminate temporality exists within the diegetic storyworld.

When investigating polychronic narration in its entirety, it is evident that certain types are more intricate than others – or, as Herman states, are "more radically indeterminate" (Herman, 2004:213). There are two factors to consider when investigating indeterminate events in a narrative. Firstly, the ordering of events or temporal elements in the storyworld (partial or multiple). Secondly, the different ways these indeterminate events are narrated (inexactly or inherently inexact) (Herman, 2004:213). Herman refers to the way indeterminate events are narrated as "coded" (inexactly coded or coded inherently inexact), a term I will be using as well. Within these two factors, each aspect (partial or multiple and inexactly or inherently inexact) possesses its own various degrees of complexity. I will first discuss the latter factor (inexactly or inherently inexact coding), as it is the least difficult to uncover in a narrative and will be the first step taken when analysing Nolan's films. Afterwards, I will explain polychronic ordering by starting with the least complicated kind: partial ordering.

Inexactly and Inherently Inexact Coding

The reason why uncovering the coding of a polychronic narrative is less arduous is because it is simply determining whether the narrative's time deformation is a result of *discourse* or a part of the *story*. The relationship between *story* and *discourse* has been discussed at length in this chapter already. As will be seen, the way in which a narrative deforms time is directly related to this relationship.

Inexactly coded narratives are a result of *discourse* affecting the storyworld's order. This is because the narrative *story* (characters, events, actions, setting, time) is not radical and follows a traditional chronological order. The reason why the narrative is fractured and inexact is because the author/director has chosen to jumble the *discourse* to achieve a certain narrative effect. From studying Herman's theory and Nolan's films, it seems that an author/director can use *discourse* to code a narrative inexactly in two ways: exploiting analepsis and prolepsis (shuffling the order of events) to such an extent that the order is indeterminate or by taking on the perspective of a character who personally perceives time (while in reality, it is normal) to be deformed. In either case, time is not radical due to an aspect of the *story* but rather as an effect of the use of *discourse*.

In contrast, inherently inexact coding is, precisely, as the name suggests, inherent to the *story*. This means that time's deformation is not due to a stylistic choice (*discourse)*. Rather, it is a result of an inherent element

within the *story* level of a narrative; time itself is radical. Unlike narratives coded inexactly, inherently inexact narratives seem to have several ways in which they can deform time within the *story*. It will be seen that Nolan peruses different theories of temporality, such as Einstein's theory of relativity, to create an inherently inexact coded narrative. This allows for a multitude of possibilities where events can exist in multiple frameworks. It is also seen in Herman's analysis of *The White Hotel* that inherently inexact coding was a result of magical realism. Therefore, there are several ways in which a narrative can be coded inherently inexact.

It should be noted that the order of the narrative (partially or multiply ordered) can be present in either inherently inexact or inexactly coded narratives. However, it will be seen that multiply-ordered narratives seem to favour inherently inexact narratives, as time's inherently radical nature lends itself to fracturing the temporal order of events. On the other hand, partially ordered narratives seem to favour inexactly coded narratives, as time's essential nature is not in question and events have (theoretically) an order in the storyworld; it is only due to the deliberate fracturing of events – where only a few are indeterminate – that the narrative is partially ordered. As will be seen, the first two texts discussed below are inexactly ordered.

Partially Ordered Polychronic Narratives

Partially ordered (sometimes referred to as temporally indefinite) narratives have the ability to create puzzle-like storyworlds due to their ability to create indeterminate events along a global linear[121] timeline. In other words, viewers/readers are able to construct an *overall* timeline of earlier and later events within the storyworld. However, due to the mode of narration, a few events resist or are impossible to assign to a designated 'spot' (Herman, 2004:212). This mode of narration is used strategically to create a puzzle-like structure that requires interpreters to engage in (re)constructing the storyworld. In Chapter 4, it will be seen that I argue that *Memento* utilises partially ordered polychronic narration.

As mentioned above, these different modes of narration can vary in degree of complexity and application. Therefore, a more detailed explanation of partially ordered narratives is required. My explanation will be based on Herman's introductory definition and his analysis of the film *The Sweet Hereafter* (1997), directed by Egoyan Atom.

It is most important first to understand that within partially ordered polychronic narratives, it is still possible to reconstruct a global timeline with only a few events resisting definitive sequence at restricted points on the timeline. This means that the majority of the timeline follows a logical cause-and-effect pattern. Therefore, the story as a whole is not largely affected by these indeterminate events. In standard narratives using analepsis and prolepsis the textual clues provided are sufficient enough to place all events in their designated

[121] I use the phrase "global linear timeline" due to some polychronic narratives containing, instead, a storyworld where time does not move forward in a straight line. Rather, time itself becomes ambiguous in nature. This will become evident when discussing temporally multiple narratives and inherently inexact narratives.

place on the timeline: the narrative's discourse unfolds, for example, as A, D, B, C, but the viewer/reader is able to, at the end, (re)construct the narrative's story as A, B, C, D. In contrast, partially ordered narratives contain a set of events (e.g. E and F) which are impossible to order. When analysing this mode of narration in the film *The Sweet Hereafter*, Herman explains the following:

> [There are] clusters of episodes about which the film does not give enough contextual detail for them to be arranged into ordered sets, though enough detail *is* given for them to be ordered with respect to other singular episodes and to other such clusters. Episodes falling within these clusters, although not strictly speaking indeterminately ordered in the context of the narrative as a whole, still cannot be arranged into a fixed sequence. They are, in other words, only partially ordered. (Herman, 2004:241-242)

Herman sums up well what I have stated above: although an overall timeline can be created, certain events resist exact placement vis-à-vis each other. What is important in the passage above is that Herman confirms that these events are not completely indeterminate. It is not that the event(s) can be sequenced in multiply different orders or exist simultaneously with other events; rather, these event(s)' temporal position in relation to certain specific other events on the timeline is indefinite or "unplaceable" (Herman, 2004:219). Hence, the term partially ordered narratives: the storyworld's timeline can only be partially constructed.

Considering that the storyworld's temporality is globally linear, and follows the rules of cause and effect, how then does discourse cause the narrative's storyworld to be ordered inexactly to such an extent that certain events are indeterminate? This is due to the mode of narration inexactly coding the temporal positions of events in the storyworld. Temporality within the storyworld is not deformed due to inherent elements within the diegetic storyworld; rather, its inexact ordering is caused by the particular perspective of a character (*Memento)* or through multiple perspectives where the decision to portray events in an inexact sequence is a stylistic choice made by the author/director. When discussing the film *The Sweet Hereafter,* it will be showcased how the mode of narration (partially ordered) has inexactly coded the storyworld's events to create indefiniteness.

Understanding the relationship of partially ordered indeterminate events within the overall temporal structure of a storyworld, we can begin to examine how these events are strategically narrated to cause temporal indefiniteness. Due to Herman choosing a film to apply and explain his theory, it will be seen how film can utilise its unique techniques to cause temporal indefiniteness.

In Herman's introductory section to his "Temporalities" chapter, he reveals two ways in which partially ordered narratives can be used. I will first provide his explanation of these two ways, followed by a brief overview of the film. In doing so, a better understanding will be achieved when explaining the two different ways of ordering found within the film. Lastly, I will discuss the unique properties that film possesses to create temporal indefiniteness, as discovered by Herman during his analysis of the selected film:

> Partial ordering [is] where 'some elements of the set [event(s)] can be uniquely sequenced relative to all others, some only relative to some others, and some relative to none.' In this last case, one might know that A is earlier than B but not know the temporal position of C relative to either; or else one might be able to include B in a temporal interval A-C but not be able to situate B vis-à-vis other events falling within that same interval, e.g. B_1 B_2…B_N. (Herman, 2004:213)

The film revolves around a tragic accident in a small town. One morning, the town's school bus is travelling on its usual course to drop off the town's children at school. Unfortunately, the bus mysteriously sways radically off the road, through a barricade and into the nearby frozen lake. Due to the weight of the bus, it begins to sink, causing most of the town's children to be killed. While the town is mourning and seeking answers, a liability lawyer named Stephen seeks to provide closure by arguing that accidents don't happen and that someone must be held responsible – his reasoning stems from his own tainted past wherein his daughter had become a heroin addict. This has caused Stephen to seek blame anywhere he can find to cope with his daughter's addiction, believing it cannot be his or her fault but some other outside factor.

The narrative unfolds anti-chronologically with Stephen being the focal centre. In this way, the narrative presents the storyworld and the events leading up to the accident and afterwards through interviews Stephen has with the deceased children's parents, the bus driver, and Nichole Burnell (a survivor of the accident that results in her becoming paraplegic) and through the alternative perspectives of the townsfolk. Due to the narrative's constant retrospective nature, linked to Stephen's attempt to understand what has caused the current state of anguish, the storyworld is represented in a fractured manner, a puzzle that the recipients must construct – and unfortunately, for the viewer, there are puzzle pieces that do not fit completely. According to Herman (2004:245), this forces viewers to create a "preference ranking" whereby viewers place these indeterminate events on the timeline where they believe they best fit. These may be clusters of events, which are predominantly used in this film, or individual events. This is precisely what Herman has done when attempting to construct the narrative timeline. To showcase this, I will provide the two figures Herman utilises. This will provide a visual understanding of what has been said and allow for a more effective way of explaining the two different orderings Herman defines in the quotation above[122].

The first figure (Figure 1) showcases the order in which events are presented in the film. As stated earlier, this reveals the film's complex temporal structure[123]. Alphabetical letters indicate the order of definite and indefinite events (determined by Herman's preference) within the storyworld. The second figure (Figure 2) reveals the entire timeline Herman constructed of the storyworld. Within the second figure, vertical lines mark the placement of definite events on the timeline. These events are required for the interpreters in order

[122] I will not be providing a detailed description of *each* event as seen in Herman's analysis as I believe this would only cause confusion and does not add any value to my explanation.

[123] It may be worth nothing that this figure was presented by Herman after he designated the order of events. However, for the purpose of explaining partially ordered narratives and not the analysis of the film, I believe this order to be more efficient.

to reconstruct the storyworld and place indeterminate events in relation to definite ones. Herman also explains that "double vertical lines enclosing asterisks" represent the mentioned clusters that do not provide enough contextual detail to be given a definite sequence or place (Herman, 2004:239). It will also be seen that some asterisks are attached with a question mark. These events are considered more indeterminate than those found in the clusters; they will be further explained in the discussion below.

Figure 1: Herman's Classification of The Order in Which Events Are Presented in Egoyan's *The Sweet Hereafter*

a, e_1, k, e_2, l, y, g_1, m, h, m, h, y, n, y, f_1, f_2, f_1, f_2, f_3, f_1, f_3, h, m, g_2, m, h, i, a, y, b, c, j, d, r, q, s, y, o_1, o_2, o_3, b, o, u, t, v, z, w, f_1

Figure 2: Herman's Construction of The Storyworld Chronology for Egoyan's *The Sweet Hereafter*

```
←----|***|----------|***|---|-|-|-|---|-|--|*****|--|-|-|-|-|-|--|*?*?|-------|-|---→
      a b c          d e  f  g h i j   k l  m n o p  q r s t u v w   x      y z
```

As stated above, the two figures represent, firstly, the fractured structure of the film and, secondly, Herman's (re)construction – in the same manner a viewer would be required to do – of the film's chronology. Taking into consideration what has been already explained and the two figures above, Herman's classification of how partially ordered narratives appear in a storyworld begins to take shape.

Herman explains that in partially ordered narratives, it is possible for more than one event to be placed between two other definitive Events (A-C). However, the sequence of these former events in relation to each other – their order between A and C – is indeterminate. Therefore, each of these events could theoretically be defined as event B. To combat this, Herman categorises each of these events as belonging to the same temporal coordinate (B), but separating them with numbers – i.e. A, B_1, B_2, B_3, C. This is seen at Event **g**, where the bus driver (Dolores) is depicted picking up the children for school. The film depicts her picking up two children, Bear Otto and Sean Walker. These two events occur between two definitely ordered Events (**f** and **h**). The issue is that the film does not provide any clue as to which child was picked up first. Hence, as seen in Figure 1, we have to designate the two events as belonging to the same general temporal position in the story timeline, thus labelling them $\mathbf{g_1}$ and $\mathbf{g_2}$ [124].

For the second form of partial ordering, Herman argues that there are certain partially ordered indeterminate events whose temporal position is unknown within a sequence of other events. These are not events that belong to the same basic temporal coordinate (B) but whose order is indeterminate. These events occur at a different time than the other events in the storyworld; however, where *exactly* they occur in relation to other

[124] Of course, it does not matter which event is labelled as 1 or 2. It is the viewer's preference. Also, although these two events theoretically occur at different times and spaces in the storyworld, their action is identical, thus only needing to be given one temporal coordinate: Dolores picking up the children before the accident.

definitive events is unknown. This is seen in Figure 2, where there are clusters of events whose temporal sequence is vague due to one or more events resisting being definitely sequenced relative to other events within that cluster or other such clusters: "The film leaves the order of the clustered episodes deliberately vague […] it does not provide enough visual or auditory information for them to be linearised in a precise way relative to one another" (Herman, 2004:245). If we are to consider Events **a** (Stephan and Klara are sleeping with Zoe in between them), **b** (Stephan and Klara are rushing to the hospital with Zoe), and **c** (Klara and Zoe are playing in a field) in Figure 2, it is known that they occur before any other event portrayed in the storyworld, as Zoe is depicted as an infant. However, these three events that focus on specific instances in Zoe's life cannot be given a precise temporal location. The only event within this sequence that can be definitively placed is **a**. This is because Zoe is much younger than in Events **b** and **c**. Due to the insufficient auditory and visual information provided for Events **b** and **c**, it is not possible to know definitely which one is before and after which. Therefore, the sequence could be **a** (Stephan and Klara are sleeping with Zoe in between them, **c** (Stephan and Klara are rushing to the hospital with Zoe) and **b** (Klara and Zoe are playing in a field). It is up to the viewer to decide which preference he or she prefers.

A more complicated cluster in Figure 2 is the sequence **m**, **n**, **o**, **p**. It can be definitely argued that these events occur after **l** and before **q**. However, their sequence relative to one another is vague. This is due to Event **p**'s indeterminacy as the event cannot be definitively sequenced in relation to Events **m**, **n**, and **o**. In other words, it cannot be argued definitively that Event **p** is before or after Events **m**, **n**, or **o**. Therefore, there is variation in how these events can be sequenced. If we refer back to the passage above, where Herman discusses these clusters, he does acknowledge that such instances of polychronic narration are not fully indeterminate, as they are restricted to a *portion* of the global timeline. Their exact sequencing does not involve the entire timeline, nor does it allow for multiple ways of sequencing outside of these clusters. Instead, they only occur within a small segment (brackets) of the timeline between a cluster of events[125]. Hence, Herman refers to these inexact events with the brackets as indefinite (Herman, 2004:242).

As opposed to the above indefinite events, Herman classifies two events that are more, if not completely, indeterminate than the clustered events described above: events **w** and **x**, marked with a question mark to indicate their more indeterminate nature. Event **x**, for example, contains the same textual clues as seen in several other episodes along the timeline. There are multiple instances in the narrative where Nicole is at a fair before and after the accident. Indeed, Nicole was left crippled after the accident, which would place it definitively on the timeline. However, in this scene, Nicole is seen "smiling at dusk as the Ferris wheel turns above her [….] the film does not reveal if she is in a wheelchair" or any signs of physical impediment resulting in the temporal placement of this event anywhere from "**d**,**e**,**f**, to **z**" (Herman, 2004:246). Although these events are more indicative of multiply-ordered narration – seeing as the events exist within multiple temporal frameworks – they do not have a large enough effect on the timeline as a whole to classify the narrative as multiply ordered instead of partial. As will be seen in the following sections, multiply-ordered

[125] Herman (2004:245) claims that such instances can also be referred to as "restricted polychrony."

narratives contain a storyworld where the global timeline entertains multiple or alternative ways of sequencing. Events **w** and **x** are not vital to the structure of the narrative in the slightest; they could be removed with no effect on the order or understanding of the story. Thus, the events that are inexact within the brackets are important to the narrative, but they are few in number, and the variation they create does not affect the global ordering of the timeline: the ordering of events **b** and **c** holds no true importance to the structure of the storyworld, nor does the order of event **p** between events **m**, **n**, and **o** affect the viewers understanding of the story or lead him or her to question the structure of the narrative on a global scale.

Thus far, an explanation of partially ordered polychronic narratives and how they appear in the film *The Sweet Hereafter* has been given. This could suffice, and thus, we could move to the explanation of multiple temporally ordered narratives. However, I have argued throughout this study that our understanding of temporal deformation should not be limited to merely the delinearisation of a narrative. Instead, as will be evident in chapter four, such deformation has a direct effect (especially in Nolan's films) on the narrative's overall message, themes, motifs, characterisation, spatialisation, atmosphere, philosophical paradigms, etc. It has also been revealed in this section that Herman regards polychronic narration as a *strategy*. Therefore, an explanation of any form of polychronic narration should include its purpose and effect on the narrative.

While applying and explaining partially ordered narratives, Herman provides a full analysis of why polychronic narration has been used in the film. As was mentioned, the film revolves around Stephan's (an aggressive lawyer specialising in liability cases) attempt to find the cause of the tragic accident that took the lives of most of the town's children. Stephen lives by the belief that accidents do not exist and that there is a clear sequence of causality that can be chronologically linked (Herman, 2004:242). Stephan tries to uncover this sequence of causality by interviewing the grieving parents and survivors of the accident, emphasising to them that someone or something is to blame. Although Stephan has lived his whole life linearising tragic stories, the film begins to dismantle his bivalent ideology by showcasing "how painful events resist being modelled in the form of a chronological series or linear array" (Herman, 2004:238). Through the interviews and altering perspectives of the townsfolk, the film begins to reveal the unreliability of human memory and understanding. Stephen prompts the viewers and townsfolk to try to sequence the storyworld's events in a cause-and-effect manner. Yet, no matter how desperate Stephan or the townspeople are to create a chronological sequence of events, some events resist being labelled as earlier or later, as bivalent. Instead, the structure of the narrative cues viewers to acknowledge that tragedy is multivalent, wherein some events must be labelled as indeterminate:

> The film's disruptions of linear chronology foreground narrative process over narrative product; forcing the viewer to resequence episodes into linear or quasi-linear order, the movie's structure points up narrative in its profile as an activity rather than an object, a vehicle for comprehension rather than a thing to be comprehended. In brief, by virtue of its temporal structure, the film insists that stories are made, not found. (Herman, 2004:244)

Considering all the information above, it is evident that the use of polychronic narration (indeterminate events), specifically partially ordered narratives, has the ability to create a complex puzzle-like storyworld where certain events can be ordered definitely and some only partially. This will certainly be evident in Nolan's films – seeing as he is considered a puzzle master. Unfortunately, *The Sweet Hereafter* is the only film to which Herman applies his theory of polychronic narration. It is also the only example he uses for partially ordered narratives; his other two texts are novels which he uses to analyse multiply-ordered polychronic narratives (see next section). Although this is not optimal, it does open the possibility of uncovering other ways in which partially ordered narratives can be utilised when analysing Nolan's film. The same can be said with regard to multiply-ordered narratives, as Herman does not provide an example of a film.

Multiply Ordered Polychronic Narratives

Having first introduced what is considered the less radical form of polychronic ordering, explaining the intricacies of multiply ordered polychronic narratives should be less problematic. In doing so, we will be able to better conceptualise the multilinear properties of multiply ordered narratives by comparing events' indeterminate inexactness against different storyworlds' inherent temporal structure. Before I provide Herman's definitions of multiply ordered narratives, I believe it best to first fully explain this, as it will provide a better starting point for understanding such an arduous concept.

When examining partially ordered narratives, it was emphasised that the storyworld's global timeline is linear and that events have a clear cause-and-effect relationship (its *story*). However, due to the mode of polychronic narration (*discourse*), certain events could not be definitely determined as earlier or later vis-à-vis other events. Despite their indeterminate nature, it was still possible though to partially order these events – we were able to slot them on a timeline in a storyworld where a definitive past, present and future exist. This is not the case with multiply ordered narratives: the narrative may, for example, have two separate storyworlds whose timelines intersect or a storyworld where time itself does not move in a forward direction, thus causing events to exist in multiple positions along a timeline. The distinctions between past, present, and future are blurred and intertwined to such an extent that "alternative or multiple ways of sequencing events are entertained" (Herman, 2004:213).

> In some cases of complex anachrony at least, what is at stake is not a complete absence of sequence or the lack of definite sequence [partially ordered] but instead a kind of narration that exploits indefiniteness to pluralise and delineraise itself, to multiply the ways in which the events being recounted can be chained together to produce 'the' narrative… where the narration anchors events in multiple temporal frameworks and thereby promotes competing ways of sequencing those events. (Herman, 2004:219)

Considering the above passage and what has been investigated thus far, polychronic narration begins to reveal the extent of its complexities. As opposed to partially ordered narratives, multiply ordered narratives reject 'standard' chronology on a global scale; their focus is not on indefinite events at certain 'points' on an otherwise linear timeline but on indeterminate events and actions on multiple timelines that exist, at times, simultaneously within the narrative. In order to better understand all of this, Herman's analysis of multiply ordered polychronic narratives should be examined and discussed – this will be conducted in a fashion similar to that seen in the previous sub-section.

Herman's first example text is the novel *Der Ausflug der toten Mädchen*[126] (The Excursion of The Dead Girls) (1946) by Anna Seghers[127]. In this story, the narrator[128] retrospectively attempts to remember her past after being inflicted by a terrible fever, causing her to be bedridden for months (Herman, 2004:222). While recovering in Mexico (due to her exile from Germany), the narrator begins to enter a dream-like hallucinatory state, transporting the reader into her past (Pre-World War 1 in Germany). She specifically focuses on a school excursion, where a juxtaposition is created between the innocent state of her friends at the time and their tragic development during World War 1 and World War 2 during the Nazi regime. According to Herman (2004:222), the reader's expectations of the narrative should be from the start that events are not going to unfold in a straightforward manner. After all, the narrator is clearly unreliable. This is due to her weakened state creating hallucinations (when she shifts from the present NOW, a cloud of dust appears before her eyes) that transports her to the past (Herman, 2004:222). By creating a world where the real and imagined are in constant play, the retrospection of the narrator, explaining what happened to her friends, results in events being questionable and unplaced:

> Readers' attempts to reconstruct the (series of) incidents recounted by the narrator – the chains of events that constitute the narrative scaffolding of the tale – unfold within this same dialectic of description and projection, telling and creating. The most insistent question posed by this narrative: How to mark time in a story about the elusiveness of time and the polysemousness of its marks? (Herman, 2004:222-223)

From what has been revealed already, it is clear that the narrative is framed. This means that the narrative contains a story-within-a-story – this is one of the formal features focused on by Genette, as discussed in section 3.3.1.1; the second level of the story is referred to as the hypodiegetic level (Herman, 2004:224). To use the terms introduced in section 3.3.1.1, there are two diegetic shifts to two different temporal 'nows': the present NOW (1940s Mexico) and the past NOW (pre-World War 1). If we are to assume that the narrative is a retrospective tale where the narrator remembers her past by creating a diegetic shift and narrating the events that unfold within that diegetic world, then we must regard the events that occur within that diegetic world as separate from the first narrative level. The hypodiegetic storyworld, therefore, contains its own timeline that continues until it reaches the present NOW. Of course, if this were to be the summation of the

[126] Following Herman's example, the book will be referred to as *Der Ausflug* henceforth.
[127] The novel is written in German. However, Herman translates while analysing.
[128] Presumed to be the author. Thus, the novel takes on an autobiographical atmosphere.

structure of this narrative, then Genette's theory would suffice by labelling the narrative as repeating analepsis. On the contrary, Herman (2004:224-225) argues that due to the dream-like atmosphere of the story, the boundary that separates the past from the present, the real from the imagined, and the earlier from the later becomes indeterminate.

During the school excursion, Netty (the narrator's childhood nickname) narrates events in the first person. As opposed to what would be typical of such retrospective narratives, Netty perceives the world around her with knowledge of the future. As mentioned earlier, the narrative creates a juxtaposition between the idyllic state of her friends and their tragic deaths and actions in the future. This occurs through Netty's point of view. While on the excursion, Netty individually focuses on her friends and teachers, describing their current actions and appearance. While doing so, she also somberly reflects on their tragic deaths involving some of her friends betraying or killing one another (Herman, 2004:220-221). This merging of past and present begins to construct the narrative in a polychronic manner.

Herman begins to explain how polychronic narration is evident in the novel by examining Seghers' exploitation of lexical and grammatical features – creating projections, retrogressions and a "strange combination of the two" (Herman, 2004:227)[129]. Focusing on the effects generated by these specific linguistic choices, Herman provides an example of Netty's unique reflections on her friend Fräulein Sichel.

While narrating the events that transpire on the excursion (the past), the narrator sees that her friend has a few grey hairs as opposed to the snow-white hair she remembered previously. The narrator reveals that it is rather a *trace*[130] of her friend's old age and later defilement for being Jewish (Herman, 2004:226). Herman acknowledges that this may be the "creative power of memory", thus reading the past in terms of the present and future. However, due to polychronic narratives being multivalent instead of bivalent[131]the narrative indicates that certain events can have effects before they have occurred: "Events that did not yet happen have in some sense already occurred […]" (Herman, 2004:226). What has occurred, then, is what I mentioned earlier as not being possible in traditional narratives. The two diegetic worlds are not separated; instead, their events are fused – the future of the hypodiegetic NOW (the present NOW) is fused with the hypodiegetic NOW (the past):

> Fräulein Sichel's experiences are not therefore presented as timeless, however. Rather, they are, as narrativised, temporally indeterminate: they have both already happened and also not yet happened in the same time frame of the story-within-the-story. This is the time frame to which readers are prompted to shift by a narrator who is, to an indeterminate extent, constructing her experiences while remembering

[129] I am not going to elaborate on their exact usage as it does not concern the medium (film) I have chosen.
[130] This is one of the lexical or grammatical features that Herman mentions.
[131] Bivalent: a "temporal system to read later events as effects of earlier events and earlier events as causes of later ones." Multivalent: a "temporal system to read some events as indeterminate, that is, as occupying an inherently vague position on the chain of cause and effects undergirding the story, such that an effect might precede its cause." (Herman, 2004:225).

> them. Or, to rephrase this last point, the narration is polychronic because of how the narrator positions herself in time; she narrates from an indeterminate location on the temporal continuum that stretches between the story and the story-within-the-story. (Herman, 2004:226)

This tendency to build the past while recounting the past at the hypodiegetic level, where events that have not yet happened affect the past, continues throughout the narrative. Even though we are made to believe that what is unfolding in the hypodiegetic world is, in fact, what occurred in the past, the narrator constantly inserts remarks that betray the effect of the future. She sees the *trace* of righteousness and justness in her young friend Otto and then remarks that because of this, he would never have joined the Nazi regime if he had returned alive from World War 1 (Herman, 2004:227). She perceives a wrinkle in her friend's brow which only appeared on special occasions. She emphasises that she cannot believe she forgot the true smooth nature of her friend's face; the last time she saw the wrinkle was when her friend died of hunger in a women's concentration camp. Henceforth, she always remembers her friend having a face with a wrinkle on her brow (Herman, 2004: 230-231).

There are other examples of the above; however, what should be focused on is the fact that effect precedes cause, and although we are told about future events, the order in which they occur is indeterminate. Readers attempt to place certain events as earlier or later while, at the same time, the narrative forces the reader to question the validity of their (re)constructed order, revealing some effects as coming temporally before their causes (Herman, 2004:225). In doing so, the narrative engages in alternative or multiple ways of sequencing the narrative – instead of (re)constructing a timeline and then needing to place certain intermediate events along it, *Der Ausflug* allows for an almost entire reconstruction of the timeline in various ways: "a fluid temporality in which past, present, and future do not have definite (or even definable) contours. Put briefly, the tale retrospectively portrays a past that is still in the making" (Herman, 2004:234). Again, we are provided with a puzzle-like narrative where interpreters are required to engage (but ultimately unsuccessfully) in the (re)construction of the storyworld.

As was shown when examining partially ordered narratives, polychronic narration is used as a strategy to emphasise the most important themes of the narrative. Thus, while analysing the multiple ordering of the narrative, Herman also examines the purpose of this mode of narration. He first identifies that the structure of the narrative opposes "the fascistic ideology espoused by the Nazis" (Herman, 2004:223). The first ideology the narrative opposes is the tendency of German fascism to search through the past for an authentic German culture. By structuring the narrative in such a way that a reader cannot sequence events in a definitive way from pre-World War 1 till World War 2 and so that readers cannot definitely link cause and effect vis-à-vis certain Jewish friends and those who would later become Nazi idealists – at the same time highlighting their loving relationship before the Nazi regime in contrast with their future hatred and murderous relationships – the narrative emphasises that "no one stage of culture, a thing continually and dynamically emergent in history, can be deemed true or authentic" (Herman, 2004:223). Secondly, the narrative opposes hyperlinear

causality, which seeks to assign blame to one agent or by finding scapegoats – as so often seen in Nazi ideology. According to Herman (2004:235), Nazi ideology seeks to make complex issues simple, to designate a direct cause and effect and provide singular explanations. *Der Ausflug* utilises polychronic narration to reject these concepts:

> At the same time, even as it tells the story of what caused the moral and physical destruction of a whole generation, it articulates not a single reason but a network of factors – intersecting and highly ramified lines of causation that make it impossible to assign blame to *an* agent of destruction. When effects predate causes in the telling of what happened, the primary task is not to assign blame but to establish connections, not to find a scapegoat from the past for the deficiencies of the present but to see how prior situations and events are systematic with problems in the world at hand. (Herman, 2004:235)

When comparing the analysis of *The Sweet Hereafter* with *Der Ausflug*, polychronic narration in both texts is used to emphasise the unreliability of memory as a vehicle for chronological structuring and the resistance of tragic events to linearisation.

Herman's last example text showcases a different form of multiple ordering that diverges from the retrospective nature of the two example texts already examined. Herman's last text, *The White Hotel*, deviates from the relatively natural storyworld structure seen in the above examples. Both *The Sweet Hereafter* and *Der Ausflug*'s storyworlds are temporarily coded as inexact as opposed to this narrative, which is inherently inexact. Inherently inexact narratives are considered more radical by Herman as they consist of storyworlds where the deformation of time is an inherent property (*story*). This means that time is deformed as *a part of* the diegetic world; it is the sole reason why events are indeterminate, as it has a direct effect on the events and characters of the storyworld (Herman, 2004:251-261). This is contrary to the two example texts discussed thus far, where temporal deformation is the direct result of the type of narration used (*discourse*) or due to the perspective of the narrator. In *The Sweet Hereafter,* the ordering of time is a result of purposefully presenting the events in an anti-chronological manner – temporality in the storyworld however progresses in a linear fashion with no interference from the past or future. This is similar in *Der Ausflug*. The deformation of time (cause and effect) is a result of the narrator's chaotic retrospective nature, where past and present become ambiguous. Past events in the storyworld (whether real or imagined) unfolded in a linear pattern; their radical ordering stems from the narrator's attempt at remembering her tragic past.

A change in the narrative's coding is not the only difference between *The White Hotel* and the previous example texts. According to Herman (2004:253), there is also a shift of emphasis from epistemological to ontological exploration. In the two example texts above, there is an emphasis on trying to understand the past through retrospection. In both examples, the narrators attempt to order tragic events in a cause-and-effect structure but are unsuccessful due to certain events resisting chronology. In *The White Hotel,* the past is not juxtaposed with the present in an attempt to understand the cause and effects of the storyworld. Instead, time

exists in such a way that events *are* able to exist "at more than one place on the narrative timeline" (Herman, 2004:252). This results in a radical use of narrative time where events that are yet to occur have a real (not just imagined or remembered) effect on the NOW. In *The White Hotel,* there is one diegetic centre from which time moves forward and backwards. The narrative then does not ask the question of what happened but rather, "[h]ow is what has not yet happened making its effects felt on what has already happened, is happening now, and is immediately about to happen" (Herman, 2004:252).

This form of multiply ordered narrative pushes the boundaries of causality, thus creating a complex storyworld where cause and effect become confused. This is seen in *The White Hotel* through a woman (Lisa) who experiences severe pain in her left breast and pelvis. In an attempt to understand the cause, she seeks the aid of a psychologist (Freud). As to be expected, Freud seeks an answer by investigating Lisa's past, seeking the cause of the effects. As the novel progresses, it becomes clear that "Lisa's pain is an effect of events that have not yet happened in the storyworld, a symptom that predates the condition it indexes" (Herman, 2002:252).

What contributes to the complex structure of the storyworld and is most likely an influential factor for indeterminacy is that the narrative progresses through a "plurality of voices and perspectives" as well as "multiple registers of discourse – poetic, epistolary, scientific, mock-autobiographical, historiographical, and prophetic – distributed between its various narrative voices" (Herman, 2004:253). These voices and their differing perspectives, as well as the various forms of discourse, are contradictory to each other, resulting in a multitude of questions regarding order; especially since the events recounted during these moments of discourse are mostly related temporally to Lisa:

> The novel suggests that Lisa's life unfolds according to a sort of organic temporality, in which any given moment is organically related to, or systematic with, moments that are ostensibly earlier and later than the instant in question. Lisa could not be the person that she is without a future that has not yet happened but that is already organically affecting the times that are presumed to precede it. (Herman, 2004:256)

Many events in the book, such as Lisa's nightmares and physical pains, point to her murder in 1941, a quarter of a century after she began experiencing symptoms (Herman, 2004:257). Hence, the narrative challenges readers to not model the storyworld in terms of cause and effect or as structured in a linear manner. Rather, the reader must regard the narrative as multivalent (therefore polychronic), whereby 'deformed' temporality is an inherent factor in the diegetic world. The effect of polychronic narration on the novel is complex, and Herman explores many reasons as to why the story is structured as multiply ordered; however, the overall consensus is that polychronic narration in *The White Hotel* is used predominantly to undermine certain ontological presuppositions:

> [*The Sweet Hereafter* and *Der Ausflug*] use polychrony to warn us against the danger of pursuing impossible totalities, wholly exhaustive stories, seamless and fully surveyable chains of causes and

> effects. [*The White Hotel*] uses polychrony to suggest that history itself may not be structured according to prototypical narrative schemata, such as THIS, THEN, BECAUSE OF THIS, THAT. (Herman, 2004:261)

Concluding our investigation of polychronic narration in its entirety, Herman's consensus with regard to polychronic narration's relationship with classical methodologies should be mentioned. According to Herman (2004:261), it can be concluded that classical methodologies of order (specifically Genette's) are still applicable within the three examined narratives. However, it has been revealed that their validity has limits. Hence, this study aims to investigate Nolan's films in a similar way, showing similarly that classical methodologies of order are limited in their application to his films. Instead, they should be investigated through the additional lens of Herman's theory of polychronic narration.

To sum up what has been argued in this section, polychronic narration encompasses partially ordered narratives where the storyworld's time is linear but some events cannot be definitively placed on a timeline or in a definite sequence. Its ordering can, however, be partially determined in relation to definitive events. Multiply ordered narratives have been shown to be more complex, whereby a storyworld's temporality becomes delinearised and interwoven. This creates alternative and multiple ways of sequencing events along a timeline. It was also revealed that in certain multiple temporally ordered narratives where time manipulation is a part of the diegetic world, certain events can occupy multiple positions on a timeline. These two forms of ordering were also seen to be either inexactly coded or coded as inherently inexact. The latter was seen in the last example of multiply ordered narratives in which time is deformed in the actual storyworld. The former includes the first two example texts where the storyworld's 'real' time is linear, but due to the type of narration, events are presented in an anti-chronological manner. Partially ordered narratives that are coded as inherently inexact are still to be investigated and might arise in the analysis of Nolan's films. If so, there may be a need to adjust Herman's theory to better suit such narratives.

It was also evident that indeterminate events are heavily influenced by the overall theme of the story being told. Herman (2004:220) emphasises that the inexactness of *The Sweet Hereafter* and *Der Ausflug* is due to the impossibility of narrating traumatic experiences. Stephen's attempt at constructing a clear order of events is impeded by certain events resisting temporal placement through the perspective of the grieving parents. Likewise, in *Der Ausflug*, the retrospective nature of memory resists a neatly ordered timeline of cause and effect. Trying to understand the tragic events of the past during the present results in an entanglement of temporal positions where pain and suffering are as resistant to chronological placement in the present as it is in the past.

We can define each polychronic narrative as partially/multiply ordered and as inherently inexact or coded inexactly. However, the means by which these indeterminate events arise in the narrative, why they arise and their effect on the reader will have different explanations for each individual narrative. This will certainly be

the case when analysing Nolan's films, which may, in turn, open us to new discoveries of how polychronic narration is used in film, specifically multiply-ordered films.

CHAPTER 4: THE ANALYSIS OF POLYCHRONIC NARRATION IN SELECTED CHRISTOPHER NOLAN FILMS

This chapter will bring together everything that has already been revealed, discussed, explained, and argued in order to answer this study's three main questions: Can the theory of polychronic narration be applied to selected Christopher Nolan films, and if so, how and why? In chapters two and three, it was argued that narrative time is deformed to such an extent within selected Christopher Nolan films that classical theories cannot be applied to analyse these films comprehensively. More precisely, Genette's theory of anachronies – which was examined in section 3.3.1.1 as deliberately seeking to solve the issue of time alteration in narratives – and in particular, his notion of achrony (timeless events), was argued to be insufficient in analysing certain events which resist chronology. This was stressed by the review of Herman's work in section 3.3.1.2 i.e. where he was shown to analyse inexactness in texts that exploited the use of anti-chronological structuring to create certain indeterminate events. In doing so, Herman developed his theory of polychronic narration which aimed at analysing and explaining these indeterminate events more efficiently than classical theories could. Therefore, Herman offers a theory that promises to solve our original problem: the inability to use traditional techniques to appropriately analyse the radical use of narrative time within selected Nolan films.

Although this is promising, it has been emphasised throughout this study that Nolan's puzzle-like films push the boundaries of temporal deformation, to a degree not typically seen in other anti-chronological narratives. This may create some difficulties when applying Herman's theory, or, on the other hand, it may validate Herman's theory vis-à-vis even the most temporally inexact narratives. Another potential problem that this study faces is the argument made in section 3.3.1.2: Herman does not apply his more 'radical' modes of polychronic narration to film.

As mentioned previously, the analysis of Nolan's films will follow a pre-determined structure. The analysis will commence by examining what is considered the least complex film followed by the second etc. up until what is considered the most temporally deformed film. Thus, the order will be *Dunkirk*, *Interstellar*, *Memento*, and *Tenet*. It should be noted that the order of these films was decided pre-analysis, allowing the status of complexity to be disproven once the analysis is completed.[132]

[132] The initial idea was to commence with films that were assumed to be partially ordered. This was due to the fact that in Herman's work, partially ordered narratives are presented as being more simplistic than multiply ordered narratives. Although this is the case for Herman, it has been emphasized that Nolan's use of narrative time is more radical than the average time distortion stories. Thus, it may be seen that certain partially ordered narratives within Nolan's oeuvre are more complex than certain multiply ordered narratives. Hence, the above decision to arrange the films based on impressionistic and overall temporal complexity and not in terms of partial vs. multiple ordering.

4.1 Dunkirk

Christopher Nolan's historical film *Dunkirk* portrays the tragic events that led up to the evacuation of soldiers on the beach of Dunkirk from 26 May to 4 June 1940 (as part of WW2). Although the characters and events are based on real occurrences, they remain fictional, a creation of Nolan. Despite this, Commonwealth War Graves (2023) states that "much of the film is pretty true to real life." In doing so, Nolan offers an immersive and emotionally impactful experience surrounding this heartrending moment in history; and by utilising his well-known narrative techniques, specifically, the deformation of chronological time.

As will be seen, Nolan presents the events of the narrative in an anti-chronological manner. As to be expected, Nolan takes this a step further. Instead of narrating the story through one perspective and organising those events anti-chronologically, Nolan tells the narrative through multiple perspectives, each representing a different experience leading up to the evacuation. The issue at stake is that these perspectives (and the characters that occupy them) share the same diegetic world. In other words, events that are portrayed through them should be placeable on an overall timeline within the storyworld. This is evident due to the separate perspectives eventually intersecting, thus occupying the same time and space at least at the end of the story. However, while watching the film, it becomes difficult to place these separate yet connected events as before or after one another. This is due to Nolan constantly shifting between these perspectives, resulting, at times, in the portrayal of effects before the cause.

The link between the example texts used by Herman and *Dunkirk* should be evident: in both cases, time is altered to such an extent that placing certain events as before or after others becomes arduous. Therefore, certain events may need to be labelled as indeterminate, classifying the narrative as polychronic. Indeed, this sounds immediately promising in terms of proving the hypothesis of this study correct; still, nothing can be solidified until a thorough analysis of the film has been conducted – events being *difficult* to place on a timeline does not make it *impossible;* only when events have been clearly identified as indeterminate can we begin to investigate polychronic narration within the film.

Before we examine how Nolan exploits time to emphasise many key moments, themes, events and philosophical paradigms, it would be best to summarise the Dunkirk evacuation in 1940, followed by a brief film synopsis.

Dunkirk Historical Summary and Film Synopsis

As mentioned above, the film revolves around evacuating soldiers, specifically English soldiers, from the Beach of Dunkirk:

> The *Dunkirk Evacuation* of 26 May to 4 June 1940, known as Operation Dynamo, was the attempt to save the British Expeditionary Force in France from total defeat by an advancing German army. Nearly 1000 naval and civilian craft of all kinds, aided by calm weather and RAF air support, managed to evacuate around 340,000 British, French, and Allied soldiers. (Cartwright, 2024)

I have decided to quote the above passage as it mentions three key factors of the evacuation: the assistance of the Naval, civilian, and Air Forces. I emphasise this and will focus on its historical role because these are perspectives Nolan showcases in the film. The film ensures this recognition by labelling his perspectives as *The Mole*[133], *The Sea*, and *The Air* (Nolan, 2017). Naval and civilian assistance falls under *The Sea*.

The British and French soldiers found themselves cornered by Germany's tactical and efficient invasion. The French believed Germany's army would invade the Metz and Lauter regions; instead, they attacked through the Belgian border at Ardennes and Sedan (Cartwright, 2024). This unexpected manoeuvre resulted in Vice Admiral Bertram Ramsey calling for a retreat at Dunkirk in the hopes of rescuing only 45,000 of the 400,00 men. Fortunately, as we know, many more men would be saved due to the aid of the navy as well as civilian and air forces.

The civilians' response for assistance was truly remarkable. Between 850 and 950 vessels[134] heeded Ramsey's call for aid, which was classified as The Volunteer Armada (Cartwright, 2024). These small ships were able to retrieve the soldiers from the beach and either escort them back to Dover or to larger ships offshore. These small boats worked in conjunction with 39 Royal Navy boats, which collected the ferried men (Cartwright, 2024). Although this was miraculous, it was not without casualties. German aircraft would regularly bomb and shoot these boats as well as any naval vessels. Towards the end of the evacuation, the British Air Force (RAF) would increase their efforts in an attempt to hinder this bombing by German aircraft. Cartwright (2024) notes that the RAF was "flying at the very limit of their fuel range." By successfully evacuating a large portion of British soldiers, Britain could carry on the war, eventually leading to Germany's defeat[135].

As can be seen, many factors contributed to the successful evacuation.[136] However, the combined efforts made by the Navy, civilians, and Air Force were inspiring. Without them, the evacuation would surely have failed — an outcome that seems to have been expected considering the aim of the evacuation was originally to evacuate only 45,000 men. Hence, it can be understood why Nolan decided to depict this historical event from the three influential perspectives. In doing so, Nolan is able to fully immerse the reader into the series

---

[133] *The Mole* refers to the soldiers attempting evacuation on the beach, and the purpose of this name will be seen when discussing the film.

[134] These civilian vessels ranged from tugboats and fishing boats to "ferry boats, and pleasure craft of all descriptions" (Cartwright, 2024).

[135] Cartwright (2024) notes that Germany's decision not to advance heavily into Dunkirk was one of its biggest mistakes.

[136] Cartwright (2024) states that the unusually calm weather was another factor, allowing smaller ships to get close to the beach effectively.

of events that led to the evacuation of Dunkirk. Of course, simply utilising three perspectives is not enough for Nolan to showcase his vision and portray the tragic event in its entirety. Hence, Nolan creates a fractured series of events that asks viewers to do 'work' in terms of linking events and invokes suspense throughout the film.

The film begins by following the first perspective, *The Mole*, during which a group of British soldiers are making their way to the beach. While they are transferring through the town, they are suddenly under attack. Tommy (Fionn Whitehead) is the only soldier who survives and makes it to the beach, where he meets another soldier, Gibson (Aneurin Barnard). After he and Gibson bury an unknown comrade, they attempt to find a way onto one of the ships evacuating soldiers. They quickly discover that medical personnel carrying the wounded on stretchers are being loaded onto a hospital ship. With that in mind, they pick up a stretcher carrying a wounded soldier and make their way to the mole[137]; they barely make it on time. However, they are identified as non-medical personnel and told to leave the ship. As they disembark, they make a last-minute effort to board the ship by climbing down to the wooden foundation of the mole. While hiding below *The Mole*, they overhear Commander Bolton (Kenneth Branagh), who is briefed on the expected outcome of the evacuation – out of the 300,000 men, only 40,000 are expected to be evacuated. Tommy and Gibson wait for the ship to leave in hopes of sneaking on board. Unfortunately, this plan also fails as the ship is soon bombed by an enemy aircraft and begins to sink. While men jump off the ship, a soldier is trapped between the ship and the mole, threatening to be crushed. Tommy quickly saves the soldier, Alex (Harry Styles). From this point onwards, the perspective of *"The Mole"* follows these three soldiers' attempts to leave the beach[138].

The second perspective, *The Sea*, opens with Dawson (Mark Rylance), a civilian sailor, loading life jackets into his boat. The Royal Navy is commandeering boats for the rescue mission at Dunkirk. Instead of relinquishing his boat (named *Moonstone*), Dawson sets sail himself with the help of his son, Peter (Tom Glynn-Carney) and another teenage boy, George (Barry Keoghan) – presumably employed to work on the ship – who volunteered. While crossing the English Channel, they come across a stranded soldier (Cillian Murphy) whose ship was destroyed by a U-boat[139]. The soldier, shivering, boards the ship but is clearly shell-shocked[140]. Once the soldier discovers that Dawson is heading to Dunkirk, he panics and demands they turn around. Dawson lies to him and suggests he calm down below deck, where Peter secretly locks him in. After a while, the rescued soldier realises he is trapped and escapes upward through a hatch. He discovers

[137] Merriam-Webster Inc. (2024) defines a mole in this context as "a massive work formed of masonry and large stones or earth laid in the sea as a pier or breakwater."
[138] Classifying this perspective as *The Mole* seems slightly misleading as only a small portion of events representing this perspective involves the mole as such. Most of the footage surrounding the three soldiers occurs in various other locations. Although this may be the case, it can be understood why this decision was made: naming the perspective as anything else may detract from the importance the mole played in extracting the soldiers. More generally, however, think of this perspective as encompassing everything involving the beach: the suffering soldiers went through while waiting on the beach, their attempts at leaving in any way possible; and their eventual rescue.
[139] A type of submarine.
[140] Another term for post-traumatic stress disorder (PTSD).

that they have not turned around and begins a scuffle where he accidentally elbows George down the steps, resulting in a severe head injury. While attending to George, Peter learns that the injury has blinded his friend and that the reason for him volunteering was to finally accomplish something in his life.

The second perspective shifts to the third perspective, where three Royal Air Force Spitfires fly overhead. Thus, this perspective focuses on the Royal Air Force's efforts to protect the rescuing vessels. Unfortunately, their fuel only allows for one hour of assistance. While on their way to Dunkirk, they engage in a dogfight with enemy fighters. During this fight, their leader unfortunately dies. Later, the two remaining fighters (Farrier and Collin) protect a minesweeper from bombing. Unfortunately, Collins's (Jack Lowden) plane is severely damaged, requiring him to make an emergency landing in the ocean. Once he has landed, his escape is encumbered due to the plane's canopy being stuck. As the plane begins to sink and Collins faces the threat of Drowning, Peter breaks open the canopy and rescues Collin; Dawson sees the plane crash and peruses it in hopes of saving the pilot – it is later revealed that Dawson's eldest son was also a pilot during the war. [141]

Sometime after this, and returning to *The Mole* perspective, Tommy, Alex and Gibson join a group of soldiers who hide in a grounded trawler on the foreshore. Here, they plan to wait for the high tide and escape on the boat. While hiding, the boat begins to be shot at by German troops – the reason German soldiers are there is because the boat is far off from the main beach. It becomes clear that the Germans are unaware of the soldiers' hiding place, instead using the boat as target practice. Although this seems good, the boat begins to take on water as the high tide comes in. A Dutch sailor (the owner of the ship and trapped with the soldiers) exclaims that the boat needs to be made lighter. Due to Gibson not uttering a single word during the whole film, ill this point, he is accused of being a German spy and told to leave. Tommy defends him; however, when Gibson is forced to speak, it is revealed that he is French – the dog tag with the name Gibson belonged to the deceased soldier who was buried on the beach at the start of the film. As the boat floats further into the sea, it quickly becomes flooded with water. The soldiers desperately flee the boat, but, unfortunately, Gibson's feet are entangled by something, causing him to drown.

It is seen that despite Farrier's (Tom Hardy) lack of fuel[142], he decides to continue aiding the extraction mission. At this point in the film, all three perspectives fuse together to share the same time and space. Dawson, having almost reached the beach, sees a Destroyer ship being bombed. The ship begins to sink, but that is not the main problem. The bombing has caused the ship to leak oil into the water, coating the men. At the same time, Tommy and Alex are able to escape their sinking ship only to be surrounded by oil and panicking soldiers. Farrier is able to shoot down the bomber plane, but it crashes into the oil-polluted water, igniting it. The soldiers rush to Dawson and are helped onto the ship; Alex is luckily saved by Peter as the boat speeds off to avoid the fire. Unfortunately, as the soldiers gather below deck, Peter is told that George

[141] When the plane made its emergency landing, Peter noted that no parachute was pulled and suggests that they should rather leave. Luckily, because of Dawson's grief, he continues to follow the plane shouting, "he may be alive, maybe" (Nolan, 2017).

[142] The reader is reminded that Ferrier is one of the RAF pilots from the third, *The Air*, perspective.

has sadly passed away. Farrier, now out of fuel, glides towards Dunkirk. At the same time, an enemy bomber approaches the mole in an attempt to stop the escaping soldiers. Luckily, Farrier is able to shoot it down while gliding. He glides a long distance past the main area of the beach, where he lands his plane and is unfortunately captured by enemy soldiers.

With the successful evacuation of over 300,000 British soldiers, Commander Bolton remains behind to oversee the evacuation of French soldiers. Once they get to Weymouth Harbour Tommy and Alex board a train headed for their home. They are greeted joylessly by citizens, and Alex begins to read Winston Churchill's famous speech in the newspaper, *We Shall Fight on The Beaches*. Peter delivers a photo of George at a newspaper press, which would describe him as a hero; the headline reads "Local Boy George Mills, Just 17, Hero at Dunkirk" (Nolan, 2017).

Although I have left out a few events to avoid a superfluous amount of information, the synopsis above shows how the film could have been presented as a series of chronological events: If the changes in perspective were similar to those described above, placing events as before and after would not be as challenging. However, Nolan does not shift perspectives in this manner. Instead, there is a constant back-and-forth between perspectives throughout the film. Before a viewer can begin to piece together the events of one perspective, there is a shift to another, then another and so on. This creates a constant struggle to not only piece together each perspective's own chronological series of events but also to construct a global timeline within the storyworld. Hence, what is to follow is the analysis of the film's unique alteration of time through various shifts in perspective with specific emphasis on discovering indeterminate events needed for polychronic narration to be present.

The Analysis of Polychronic Narration in Dunkirk

As mentioned in the above section, the film *Dunkirk* tells the story of the evacuation of British soldiers from the beach of Dunkirk. It does so by presenting a series of events through three perspectives, each leading to the climax of the film: the evacuation itself. These three perspectives are *The Mole*, *The Sea*, and *The Air* (Nolan, 2017). Considering this, the narrative could be considered a frame tale, as seen in *Der Ausflug der toten Mädchen* in section 3.3.1.2, with each perspective containing its own time frame, as argued by Smith (2017). Although I understand the reasoning behind classifying the narrative as a frame tale, I disagree. In *Der Ausflug der toten Mädchen*, there is a story-within-a-story, each containing its own diegetic storyworld. There are no diegetic shifts in the film *Dunkirk*: although there are different perspectives, they all occupy the same diegetic storyworld. Indeed, we can construct a separate timeline for each of the perspectives; however, these three timelines should at least theoretically still be placeable on an overall global storyworld timeline. This is exactly what will be attempted in order to determine if there are indeterminate events within the storyworld.

The first step in uncovering indeterminate events in the film and thus deeming it polychronic (or not) is determining whether the narrative is coded as inexact or as inherently inexact. As discussed in section 3.3.1.2, inexactly coded narratives are when events in the storyworld are presented as anti-chronological due to either the focalizer's point of view or the stylistic choices made by the author/director. This is a direct result of discourse being used to narrate the story's temporal structure in various ways. This was seen in *The Sweet Hereafter,* where it was a stylistic choice, and in *Der Ausflug,* where it resulted from the character's hallucinations. In contrast, with inherently inexact coding the temporal deformation does not stem from the use of discourse. Rather, the narrative's story is structured in such a manner that time in the storyworld is, in of itself, not traditionally chronological – time within the storyworld does not follow traditional cause-and-effect relations.

Time in the storyworld of *Dunkirk* is juggled by discourse to such an extreme that one is almost led to believe that time is inherently inexact within the narrative. This is due to the constant juggling of past, present, and future across the three main perspectives: *The Mole*, *The Sea*, and *The Air*. As will be seen below, the shift between these three perspectives and their events is not linked chronologically. Simply put, the film does not move from cause to effect when shifting between these perspectives, nor does it allow some link (throughout most of the story) between the event currently portrayed and the event that is shown next. When the perspective of *The Sea* is being showcased, the shift to *The Air* is often hours ahead of the event that preceded it. This juggling of time results, in many cases, of an effect being shown before its cause.

Considering the above information, the film successfully creates the impression at least of temporal deformation inherent within the storyworld. However, this is not the case. The storyworld of *Dunkirk* assumes a traditional cause-and-effect paradigm where events are linked chronologically – the events portrayed during the three perspectives have a before-and-after relationship, at least within the storyworld. These events are showcased as fractured yet related to one another due to Nolan's decision to *present* them as such. However, Nolan's decision in this regard is taken to the extreme. Nolan makes the stylistic choice to bounce back and forth between the three perspectives constantly, with each occupying a different temporal point in the storyworld; until they finally intersect, but only at the climax of the story. Therefore, the narrative can be defined as being coded inexactly: the deformation of chronological time is due to Nolan's stylistic choice. The events in the storyworld are seen through the experience of the characters occupying the different perspectives, which in turn is scrambled by Nolan, thus creating a fractured puzzle-like structure for the audience to piece together (if it can).

The reasons for Nolan's stylistic choice will be revealed after we have meticulously examined the temporally deformed structure of *Dunkirk*. It has been confirmed that *Dunkirk* is coded inexactly, causing time within the storyworld to be fractured by the discourse itself and events to be showcased anti-chronologically. However, this is not enough to classify the film as polychronic. As seen in section 3.3.1.2, Herman argues that polychronic narration is evident in narratives that exploit anti-chronological narrative structure to such

an extent that certain events cannot be given a definitive place on a timeline. These events are defined as being indeterminate. Therefore, in order to label *Dunkirk* as being polychronic, an investigation into whether it exploits anti-chronological structures to this degree needs to be conducted. Once it has been confirmed that there are indeterminate events in the film, thus making it polychronic, further analysis of its exact method of polychronic narration can commence – this would include defining it as partial or multiple in terms of ordering and then, in addition, why and how polyphonic narration has been used to emphasis certain other narrative elements.

In order to uncover any indeterminate events in *Dunkirk*, a similar analysis will be conducted to that which Herman used when discussing his example texts and as summarised in section 3.3.1.2. The difference is that I will be combining Herman's analytical techniques used for his analysis of all three texts: *The Sweet Hereafter*, *Der Ausflug der toten Mädchen*, and *The White Hotel*. When analysing the temporal structure of *The Sweet Hereafter*, Herman constructed a timeline presenting definitive and indeterminate events. This allowed for a visual understanding of how certain events resisted definitive placement on the storyworld's timeline. The figure also indicated how the narrative was coded partially; brackets highlighted that within a cluster of events, one or two events could not be definitely sequenced within that cluster. This did not, however, indicate multiple ways of sequencing those events. Instead, the indeterminate event(s) could simply be allocated as falling within those brackets; as such, it absolves interpreters from establishing "positions for particular events within that larger span of time" (Herman, 2004:214). Hence, the narrative was classified as partially ordered. When analysing the multiply temporally ordered narratives (*Der Ausdlug* and *The Sweet Hotel*), Herman did not supply a constructed timeline showing these indeterminate events as he did with *The Sweet Hereafter*. Indeed, Herman simply explained why these narratives were multiply ordered. However, he focused more on why events were indeterminate and multiply ordered rather than providing a visual representation.

Herman does not, however, state that constructing a visual timeline of a narrative should be restricted to partially ordered narratives. The reason I believe he has not provided a constructed timeline for his other example texts is that it is most likely easier with partially ordered narratives, considering that partially ordered narratives have a relatively undisturbed *global* timeline. Importantly, film as a medium, as opposed to a large novel, lends itself better to such (visual, timeline) categorisation due to events being visually portrayed and film's compact nature; films don't typically stretch longer than a few hours.

Considering the above information, I have decided to use the timeline technique in my analysis of polychronic narration in Dunkirk and the subsequent films. I believe this to be the best way to uncover and showcase indeterminate events within the films. Also, as stated in section 3.1.1.2, Herman does not apply multiply ordered narratives or inherently coded narratives to film, thus requiring some initiative when dealing with films as radical as Nolan's.

Lastly, it should be noted that, as predicted in section 3.3.1.2, certain Nolan films are more complex than Herman's example texts, especially if we only compare films (*The Sweet Hereafter*) instead of novels and films. Therefore, some adjustments need to be made when analysing *Dunkirk*. Due to the uncertainty of events occurring before, after or at the same time as others, alphabetical letters were not enough to designate all the events in the film on a timeline.[143]To combat this, I have decided to use numbers to designate the order of events (1 being the first, 2 being the second, and so on) and alphabets to designate events that fall within the same temporal 'bracket' but where their sequence relative to each other is unknown (1a, 1b, 1c…).

With this background in mind, Figure 3, provided below, shows the constructed timeline of Dunkirk with definitive and indeterminate events. As was the case with *The Sweet Hereafter*, clustered events where the exact sequencing is unclear are enclosed in brackets. The extent of indeterminacy within these clusters— defining it as partial and multiple — will be discussed. Events that have a question mark indicate that their exact location on a broader scale within the timeline is indeterminate. Figure 4 represents the discourse of the film, the order in which events in the storyworld are portrayed to the viewer.

Figure 3: Dunkirk's (Re)Constructed Storyworld Timeline

<   --1-2-3-4-5-6-7-8-9-[10-11-12-13]-14-15-[16-17-18-19-20]-21-22-23-24-25-[-26-27-28-29-30-31-32-33-34-35-36-37-38-39-40-41-42-43-44]-45-46-47-48-49-50-51-52-53-54-55-56-57-58-59-60?-61-62?-63?-64?-[65-66?-67-68-69-70-71-72]-73-74-->

Figure 4: The Order of Events Presented to The Viewer

1, 2, 14, 21, 3, 14, 22, 3, 14, 24, 3, 15, 24, 4, 17, 25, 5, 18, 5, 6, 20, 34, 35, 36, 37, 6, 23, 37, 7, 23, 45, 46, 8, 11, 10, 11, 13, 23, 48, 12, 16, 48, 32, 19, 33, 38, 26, 27, 41, 39, 41, 40, 41, 48, 27, 42, 48, 29, 42, 30, 42, 48, 30, 42, 48, 31, 30, 43, 50, 51, 62a, 51, 54, 62b, 63, 55, 53, 47, 54, 64, 44, 55, 52, 56, 52, 56, 57, 56, 57, 56, 57, 56, 58, 59, 60, 66, 59, 66, 59, 66, 59, 69, 65, 80, 70, 81, 82, 65, 81, 67, 83, 65, 81, 68, 81, 68.

At first glance, the two figures above already highlight the complexity of *Dunkirk*. In Figure 3, the constructed timeline reveals multiple instances in the film where the exact sequencing of events is unclear. Furthermore, indeterminate events were found whose exact placement on the timeline is inexact on a large scale, not just restricted to a cluster of events. Figure 4 also showcases the extreme shifting between past, present, and future events within the film. It is clear that the audience is constantly bounced back and forth between the three perspectives, expecting them to draw lines of causality between what has been shown and what is currently being shown. However, while doing so, their efforts are constantly foiled by interjecting events whose relationship as before or after is questioned as the film progresses.

[143] This could also be why Herman decided not to provide a constructed timeline for some novels, as novels may in fact portray more events than a film.

From the two figures above, it is clear that polychronic narration is evident within the film. However, a deeper analysis of these indeterminate instances needs to be conducted to uncover what mode of polychronic narration is used (partial or multiple) and why it has been used.

The first bracket in Figure 3 involves Events **10**, **11**, **12**, and **13**. This structure already resembles the clustered events found in Herman's analysis of *The Sweet Hereafter* (section 3.3.1.2), which is classified as a partially ordered narrative. Although the first instance of indeterminacy in *Dunkirk* resembles that found in *The Sweet Hereafter*, stark differences begin to emerge upon further analysis. First, *Dunkirk's* first bracket's extent (how many events are clustered in the bracket) is the smallest found in the film, with only four clustered events. Yet, it is the largest bracket of indeterminacy found in *The Sweet Hereafter*. Of course, this does not prove that *Dunkirk* is not partially ordered; rather, it proves the argument made earlier in this section and section 3.3.1.2: Nolan's films contain a more frequent and complex use of temporal deformation. If we compare the two constructed timelines from *Dunkirk* and *The Sweet Hereafter*, Dunkirk stands out as the more complicated; however, this is under the assumption that *Dunkirk is* partially ordered as well.

The second stark difference begins to answer the question as to whether *Dunkirk's* use of polychronic narration is partially ordered, as seen in *The Sweet Hereafter*. In section 3.3.1.2, Herman classified *The Sweet Hereafter* as partially ordered due to the events in the clusters being what Herman defined as an example of restricted polychrony. By this, he means that their sequence was relatively discernible, with only one or two events not being definitively sequenced in relation to other events in that cluster. Therefore, these events are not fully indeterminate but rather temporally indefinite.

If we refer again to the cluster **m** (Stephen interviews Dolores), **n** (Stephen meets with Hartly and Wanda Otto), **o** (Stephen visits Billy's garage to see the bus), and **p** (Nichole lays in the hospital) in *The Sweet Hereafter*, it can be decerned that events **m**, **n**, and **o** follow each other chronologically. However, the exact temporal placement (before or after) of Event **p** in relation to Events **m**, **n**, and **o** is indefinite – the viewer has to place Event **p** as before or after based on their own preference. The important thing to acknowledge in this cluster is that event **n** will always follow **m**, and **o** will always be after **n** no matter the placement of **p.** Thus, the sequence could be ordered as **p** (Nicole lays in the hospital), **m** (Stephen interviews Dolores), **n** (Stephen meets with Hartly and Wanda Otto), **o** (Stephen visits Billy's garage to see the Bus).

This form of indeterminacy is present in the other two clusters found in *The Sweet Hereafter*. Hence, Herman classifies the narrative as partially ordered. The sequence of events remains chronological except for one or two events rejecting a temporal placement in this sequence – the cluster does not allow for multiple or alternative ways of sequencing *all* the events in the cluster.

For *Dunkirk* to be classified as partially ordered, its clusters should show the same kind of sequencing as seen in *The Sweet Hereafter*. Currently, based on my preference, the first bracket in Dunkirk involves Events

10 (Tommy, Gibson and Alex watch a man commit Suicide), **11** (Conel Winnant walks along the beach and meets with the Engineers), **12** (Winnant meets with Commander Bolton on the Mole), and **13** (Tommy, Gibson and Alex meet up with the Highlanders walking towards a grounded fishing trawler). What should be noted is that within this cluster, Event **11** will always follow **10**, and Event **13** will always be after **12**. However, beyond this, the cluster's sequence can vary. Although there is a clear similarity between the two films, *Dunkirk* showcases slightly more variation than *The Sweet Hereafter*: **10, 11, 12, 13** or **10, 12, 13, 11** or **10, 12, 11, 13** or **12, 13, 10, 11** or **12, 10, 11, 13** and **12, 10, 13, 11**. Despite this small increase in different sequencing, *Dunkirk* can still not be definitively classified as partial or multiple; an examination of all the indeterminate events must first be conducted. However, it can be argued that thus far, *Dunkirk's* indeterminacy is leaning towards being partially ordered as its first bracket seems to imply restricted polychrony (temporally indefinite), as seen in *The Sweet Hereafter*.

Dunkirk's second bracket does not disprove the above hypothesis that *Dunkirk's* mode of narration is leaning towards being partially ordered. This is because it contains the same indefinite sequencing found in the first bracket. *Dunkirk's* second bracket involves Events **16** (Alex, Tommy, Gibson and the highlanders reach the grounded trawler), **17** (Dawson sees a floating/sinking ship with a shivering man on top), **18** (George offers the shivering soldier some tea), **19** (Some soldiers in the trawler are sleeping while others talk), and **20** (Dawson begins to grow closer to Dunkirk, bombing can be heard which frightens the shivering soldier). Within this bracket, Events **16** and **19** are indefinite as their temporal placement is indeterminate in relation to **17**, **18**, and **20**. What can be definitively stated is that **17**, **18**, and **20** are chronological in relation to each other, and Event **19** is after **16**. Apart from this, the variation in sequencing is similar to that found in the first bracket: the discourse of this bracket could be **17**, **18**, **16**, **20**, **19** or **17**, **16**, **18**, **20**, **19**, or **16**, **19**, **17**, **18**, **20**, or **17**, **16**, **19**, **18**, **20** and, **16**, **17**, **18**, **20**, **19**.

Indeed, this bracket has more variation than the first, possibly leading one to consider the narrative as coded multiply, especially if we consider Herman's first definition of multiply ordered narratives: "…[a] self-conscious, self-subverting modes of narration in which alternative or multiple ways of sequencing events are entertained" (Herman, 2004:213). Certainly, within this bracket, there is evidence of "multiple" and "alternative" ways of sequencing. However, *Dunkirk's* validity as multiply ordered comes into question when Herman adds to his first definition the following: "[…] a kind of narration that exploits indefiniteness to pluralise and delinearize itself, to multiply the ways in which the events being recounted can be chained together to produce 'the' narrative itself" (Herman, 2004:219). This is because, thus far, *Dunkirk's* indeterminacy cannot be argued as affecting the sequencing of the narrative to such an extent that there are multiple ways in which events can be constructed to "produce 'the' narrative". In other words, the indeterminacy examined thus far does not bring into question the global chronological structure of the narrative. Instead, what has been uncovered leans more toward Herman's definition of partially ordered narratives: "[…] make it possible to reconstruct a global sequence or overall temporal interval, yet mitigate against interpreters' efforts to establish temporal positions for particular events within that larger span of

time" (Herman, 2002:213-214). The indefiniteness discussed has been reserved for a small temporal bracket within the storyworld, and where the sequence of events within the two brackets is *relatively* definitive, with only one or two events restricting exact placement. Although Dunkirk's classification seems to be becoming more and more clear, bracket three in Figure 3 might throw a wrench in this assumption as it occupies a significantly larger portion of the storyworld's time than brackets one and two.

As stated above, bracket three occupies a large portion of the storyworld's timeline, from Events **26** to **44**, making it the largest bracket of inexact events in the film. At first glance, one wouldn't be wrong to assume that such a large bracket of indeterminacy contains multiple ways of sequencing. However, few events within this bracket resist temporal placement in relation to other events in this bracket; only six out of 19 Events. The reason why this bracket's extent is so large is due to Events **26**, **27**, **29**, **30**, **31**, and **44** (chronological to one another) being able to occupy any position within this bracket. These six events deal with the trapped soldiers in the fishing trawler. There is not enough visual or auditory information provided to allow us to sequence them definitively. The film's script also provides no temporal indication besides labelling these six events and the other events in the bracket as occurring during the "day". It can also be argued that the events taking place in the fishing trawler occur simultaneously with the events Dawson, Farrier and Collins are engaging in at the minesweeper. However, it cannot be definitely determined which events are occurring at the same time; thus, the viewer has to order these events based on their preference. The only assistance we are given with regard to which events are occurring at the same time is the film's use of overlapping music. By this, I mean that the same suspenseful music is being played during the scene where the soldiers' trawler begins to flood with water (Event **44**), threatening to Drown them and during the scene where Collin's sinking plane begins to fill with water (Event, **42**). In both scenes, the character(s) are trapped while water begins to pour in, threatening their life. Although this may point to these events being linked, the shared music is most likely Nolan's way of creating suspense, or the connection is purely thematic (danger or fear of death).

Returning to bracket three as a whole, although there are only six indeterminate events (chronological to each other), their sequencing relative to the other events allows for multiple ways of ordering. Indeed, this is due to the *numbe*r of events within this bracket. Nonetheless, the fact that these six events are able to be interjected before or after (so long as they follow each other) any other element in this bracket allows for multiple variations of sequencing, even if the difference in sequencing is only due to one event changing order. For example, the sequence of this bracket could be **28**, **32**, **26**, **33**, **34**, **35**, **27**, **36**, **37**, **38**, **39**, **40**, **29**, **30**, **41**, **31**, **42**, **44**, **43**. Another example would be the six indeterminate events occurring in order at the beginning or end of the bracket.

Considering the above information, it can be clearly seen that bracket three entertains more sequencing possibilities than the previous two brackets. This is because there are more indeterminate events (six) than in the other brackets, as well as more events overall taking place (nineteen). Thus, it cannot be ignored that a

large portion of the film has now been classified as containing indeterminacy. In conjunction with the previous two brackets, the film's ordering is becoming more indeterminate in general than that seen in *The Sweet Hereafter*. With this in mind, Herman's definition of multiply ordered narratives allowing multiple or alternative ways of sequencing events to produce 'the' narrative is becoming more applicable to *Dunkirk*. This is because of the increase in the number of indeterminate events that are fundamental to the narrative's structure; thus, the sequence of events that produce 'the' narrative is becoming more radical. Therefore, the previous assumption that *Dunkirk* is partially ordered is slowly losing its validity.

Before discussing the last bracket, Events **60**, **62**, **63**, and **64** need to be examined. As seen in Figure 3, these events contain a question mark instead of being enclosed in a bracket. This is because their indeterminacy is more radical than those found in the brackets. In Herman's analysis of *The Sweet Hereafter*, there are two Events (**w** and **x**) that possess the same degree of indeterminacy. Herman has "tagged" these two events with a question mark because they are by far more radically indeterminate than the indefinite events in brackets (Herman, 2004:249). This is due to their possible temporal position occupying a large portion of the narrative's timeline. For instance, Event **w** in Herman's analysis can be placed anywhere on the timeline, stretching from "**d**, **e**, **f** to **z**" (Herman, 2004:249). The same can be said for Event **x**, which could occupy any position after **o** to **z** – a smaller extent than **w** but still more indeterminate than the clustered events.

At first, the question arises of whether *The Sweet Hereafter* is itself multiply ordered rather than partial, seeing as it contains events that are more, if not fully, indeterminate than those enclosed in clusters. Herman's last definition of multiply ordered narratives is where "the narration anchors events in multiple temporal frameworks and thereby promotes competing ways of sequencing those events," the validity of this question increases. Although this is an important part of multiply-ordered narratives, I refer back to Herman's argument that multiply-ordered narratives contain events that challenge the sequence of events that produce 'the' narrative. The indeterminate Events **w** and **x** are not fundamental to the structure of the narrative: if these two events were to be excluded from the storyworld, the narrative would not change in the slightest. Furthermore, the core events of *The Sweet Hereafter* that are indeterminate/indefinite fall within small clusters where their sequencing is only slightly inexact. For these reasons, and those discussed in section 3.3.1.2, *The Sweet Hereafter* is a form of partially ordered polychronic narration. With this in mind, can the same be said for the similar events found in *Dunkirk*?

Event **60** is the first event with a question mark, indicating it is more indeterminate than the events in brackets. This is because the scene depicts Tommy nodding at Alex after they are rescued. The issue is that the film does not provide enough context as to whether the event occurs directly after **57** (Collins sees the bomber being shot down and shouts at Dawson to leave), after **68** (Farrier watches his plane burn and is captured), or in between these two events. Therefore, leaving its temporal placement indeterminate within this large span of time.

Events **62**, **63**, and **64** are said to be more indeterminate than the indefinite events in brackets because their temporal placement ranges from **43** to **69**. On top of this, unlike the events in brackets, they are not chronological to one another. The order in which they are placed from Events **43** to **69** can be shuffled around in conjunction with the inability to occupy any point (before or after) from Events **43** to **69**. The reason for this is that these scenes depict soldiers boarding civilian boats and being ferried to stationed destroyers. Although it can be stated that this occurs after **43** – Event **43** depicts Bolton looking through his binoculars, seeing the civilian boats approach the beach and mole – there is not enough evidence to definitely place, **62**, **63**, and **64** as before or after any event stretching from **43** to **69**.

With regard to Event **62**, Figure 3 reveals that this event is broken into two separate Events: **62a** and **62b**. This is similar to Herman's Events, $\mathbf{g_1}$ and $\mathbf{g_2}$, in his analysis of *The Sweet Hereafter*. Event **62** in *Dunkirk* deals with two scenes where soldiers are boarding civilian vessels; however, the boats and soldiers are different. This indicates that the two events are separate, but there is not enough information given to label one as occurring before or after the other. Due to these events dealing with the same action, I have chosen to categorise them under the same Event (**62**) but label them **a** and **b** – labelling the Event as or **b** is based on preference; we do not know which one came first.

Considering the information above, Events **60**, **62**, **63**, and **64** share similarities with Events **w** and **x** in Herman's analysis of *The Sweet Hereafter*. The first is that in both narratives, these indeterminate events are not foundational to the overall narrative structure: if **60**, **62**, **63**, and **64** were taken out of the narrative, there would be no effect on the overall progression of the storyworld. On the other hand, it cannot be ignored that these events disrupt the sequencing of fundamental events on a much larger scale than seen in *The Sweet Hereafter*. In addition, these events, along with the other indeterminate events found within brackets, showcase multiple ways in which *Dunkirk's* overall timeline can be constructed, dismissing the previous assumption that the film is ordered partially. Yet, there is one final bracket that needs to be discussed before any final conclusion can be reached.

Within bracket four, the first Event that stands out is **66**, which also has a question mark accompanying it. It portrays the moment Dawson is attacked by an enemy fighter while returning to Weymouth Harbour. The issue is that the film does not appropriately showcase whether this Event happened shortly after **57** or before **69**. This alters not only the sequencing of the bracket but also the sequencing of Events from **57** to **69** in conjunction with the other Events that already disturb its order. With this in mind, the sequencing of Events **45-69** becomes complex as multiple orders are entertained.

Returning to the fourth bracket, Events **65**, **67**, and **68** are chronologically related. However, as stated earlier, it is not known if Event **66** occurs before, after, or during these Events. Likewise, it is not certain whether Event **69** is before **68**. Event **70** can be definitely argued as occurring after **65**, **66**, **67**, **68**, and **69**. Its indeterminacy lies in whether it is after **69** or after **71**. The reason why I believe this is uncertain is because

Bolton is seen calling the last British soldier to be evacuated. He also states that he will be waiting for the French evacuation. While watching the film, it is easy to assume that this Event has occurred before **71** – when the soldiers exit Dawson's boat late at night at Weymouth Harbour – due to Bolton's surroundings appearing to be after sunset. However, when considering the fact that 300,000 plus men needed to be evacuated – not to mention that in the film, the evacuation only commenced during the afternoon – it would not be an exaggeration to assume that the evacuation would take the whole night up until the following day, thus placing Event **70** as after **71** or even after **72**. What makes this latter argument more believable is the fact that the newspaper Tommy reads (Event **72**) contains Churchill's speech, which was made on the 4th of June 1940, the last day of the evacuation. Therefore, Bolton's scene would theoretically occur later than Event **72**. With all of this in mind, bracket four's level of indeterminacy seems greater than the restricted polychronic ordering seen in *The Sweet Hereafter* and in brackets one, two and three. This is because Event **66**, in particular, can be temporarily placed outside of the bracket instead of being shuffled around inside of it – voiding its classification as restricted.

Considering the above examination of *Dunkirk's* indeterminacy, it has been debated whether it contains a partially ordered or multiply ordered mode of polychronic narration. After analysing the first two brackets, the assumption was that *Dunkirk's* indeterminacy is leaning towards being partially ordered. This was due to the indeterminate events resembling the same restricted inexactness as seen in *The Sweet Hereafter*. Although this seemed to be the case, the argument was made at the time that despite the similarities between the two films made thus far, *Dunkirk's* indeterminacy already showcased a higher degree of complexity than what was evident in *The Sweet Hereafter*. Therefore, *Dunkirk's* classification as partially ordered needed to be reserved until all of the film's indeterminacy was examined. This led to bracket three's examination, which began the shift in our assumption that Dunkirk was partially ordered. The reason for this shift in thought was largely due to the significant increase in extent found in the bracket – not only is it the largest bracket of indeterminacy in *Dunkirk,* but it is significantly larger than *The Sweet Hereafter's* largest bracket (containing only four events). Although this bracket only contains six indefinite events, which are restricted inside the bracket, the multiple sequencing that it causes on such a large scale cannot be ignored. By altering the sequence of nineteen important events (bracket 3), *Dunkirk's* temporal order of events that produce "the" narrative becomes more radical than that seen in *The Sweet Hereafter*. Hence, there is an inclination towards defining the film as multiply ordered. The validity of this inclination grows with the analysis of Events **60**, **62**, **63**, **64** and **66**.

As stated earlier, Events **60**, **62**, **63**, **64**, and **66** are more indeterminate than the indefinite events found in the brackets. This is because their sequencing is not restricted to a cluster of events. Instead, their exact temporal coordinate is indeterminate over a large span of time. These events, in conjunction with brackets one, two, three and four – bracket four containing both kinds of indeterminate sequencing - restricted ordering as seen in the other brackets and a more indeterminate event (**66**) – a conclusion can made about whether *Dunkirk* has a partial or multiply ordered mode of polychronic narration.

As mentioned earlier, the initial assumption was that *Dunkirk* is partially ordered. However, after examining all the instances of indeterminacy in the film, I can confidently argue that it is ordered as temporally multiple. The first reason is due to the sheer amount of alternative sequencing the four brackets create. True, brackets one, two and three (despite being larger than the clusters found in *The Sweer Hereafter*) are examples of restricted polychronic ordering where events are indefinite more than they are indeterminate[144], thus assuming *Dunkirk* to be partially ordered. However, when considering the four brackets as a whole, it can be seen that their combined indeterminacy creates a multitude of alternative ways in which the timeline of *Dunkirk* can be sequenced. In other words, we are able to rearrange the entire timeline of *Dunkirk* in a vast number of different ways. Hence, the film fulfils one of Herman's criteria for multiply ordered narratives: "[…]to multiply the ways in which the events being recounted can be chained to produce 'the' narrative itself" (Herman, 2004:219). Although in *The Sweet Hereafter,* there are localised alternative ways to sequence the narrative, it does not allow for the multitude range of alternative sequencing seen in *Dunkirk,* nor does the alternative sequencing of indeterminate events affect the overall production of the narrative. In contrast, the alternative sequencing of *Dunkirk* directly impacts the viewer's understanding of which key events came before or after each other, thus obstructing his/her overall construction of the narrative timeline. This allows *Dunkirk* to entertain multiple global storyworld timelines. On the contrary, despite the alternative sequencing in *The Sweet Hereafter,* a global timeline can be constructed where cause and effect, although uncertain to a degree, can be broadly determined.

The second reason why *Dunkirk* is multiply ordered is because it fulfils Herman's other criteria: "where the narration anchors events in multiple temporal frameworks and thereby promotes competing ways of sequencing those events" (Herman, 2004:219). This occurrence is obvious with regard to Events **62**, **63**, and **64**, where it was revealed that their temporal placement ranged from **43** to **69**. In addition, some of the indefinite events found in the four brackets can also be argued to occur simultaneously. This is evident in bracket three: the events taking place within the fishing trawler can be argued as occurring simultaneously with the events involving Collin and Farrier (in the same bracket). With this in mind and the above information, it is evident that *Dunkirk* can be defined as having a multiply ordered mode of polychronic narration.

Having examined and determined *Dunkirk* as multiply ordered, a brief explanation should be provided as to why Nolan has deformed time to such an extent. While watching and analysing the film, two key themes are present: the tragedy and heroics of war. In *The Sweet Hereafter* and *Der Ausflung*, polychronic narration was used to emphasise tragedy's resistance to being perfectly plotted as cause and effect. Although *Dunkirk* depicts the horrific tragedy of war – there are multiple images of death and suffering, such as men being

[144] To reiterate this important distinction, indefinite events can be definitively sequenced in relation to a number of other events, as seen in brackets one, two and three. On the other hand, indeterminate events, such as events 60, 62, 63, 64, and 66, are not restricted to indeterminate clusters as their temporal placement can be argued to occur in multiple temporal frameworks.

burnt alive – I do not believe this to be the reason why polychronic narration was used. Instead, I believe it is to highlight the joint efforts and heroism of the various parties that made it possible for the evacuation to take place.

The film makes it clear that a single party and its direct actions (cause and effect) cannot be accredited as the reason for the successful evacuation. The film implicitly labels the various parties as *The Mole, The Sea* and *The Air*. In doing so, Nolan highlights the importance each party had in evacuating the soldiers. In addition, Nolan emphasises the fact that no one party or individual can be solely credited by labelling each perspective as belonging to a greater whole: *The Mole* could be labelled as *Bolton and soldiers, The Sea* as *Dawson and Crew* and *The Air* as *Farrier and Collin*. Instead, the individuals occupying these perspectives are only a part of a greater whole in the evacuation of the soldiers at Dunkirk.

Understanding that the film revolves around the various parties' combined efforts to evacuate the soldiers, the reason why polychronic narration is used becomes evident. As discovered, the temporal placement of the various events – and across the three perspectives – becomes indeterminate due to the radical shifting between past, present and future. This creates a plethora of confusion as to whether certain events occur before, after or during other events. In doing so, Nolan does not allow for one party to stand above the rest. Instead, he highlights phenomenal heroic efforts and choices made by each perspective. The impression is thus created that Dawson did not put his and his son's life in danger because he saw Farrier and Collins – a reminder of his deceased son. Nor did the other civilians risk their lives because the military ordered their ships to be requisitioned – their decision is portrayed as a miracle, an act of patriotism. The soldiers in the trawler did not risk their lives in sailing past enemy lines because they knew civilians were on their way. All these events and more are dissociated from an earlier cause. The inexactness used in *Dunkirk* showcases the joint efforts made by many to save the stranded soldiers. It is not necessary to know the exact temporal placement of events in order to understand the film, but it is necessary to show the miraculous efforts made by the many who succeeded in accomplishing the impossible.

The above argument as to why Nolan used polychronic narration is certainly not the only factor — as mentioned earlier, tragedy's resistance towards temporal placement is one, and possibly human desperation, evident in Tommy's perspective, can be revealed as another reason. However, I believe the emphasis on the almost-miraculous (outside of causal relationships) nature of the choices and actions of the various characters is the primary thematic nexus for explaining the use of multiply ordered polychronic narration.

4.2 Interstellar

Interstellar, along with *Inception* and *Tenet*, is one of Nolan's projects where the nature of time – questioning our understanding of time, its place in our universe, pushing the boundary of time's effect on a

micro and macro level[145], and how time can be manipulated – is at the centre of the storyworld's unique structure, the reason behind many of the narrative's philosophical paradigms, and the primary factor through which the narrative's themes and messages are showcased. This is contrary to the distortion of time in *Dunkirk,* where the nature of time is not a primary theme within the storyworld – time deformation is not part of the *story,* but rather part of the narrative's *discourse*; a narrative technique, to emphasise certain themes and to create a puzzle for the audience to solve, thus heightening their engagement. In contrast, *Interstellar* invokes the audience to contemplate the nature of time itself and its unknown characteristics and possibilities.

Similar to *Dunkirk*, *Interstellar* follows two perspectives, one on Earth and one in outer space. These two perspectives are also not in constant separation; they are joined at the beginning and end of the film. What makes *Interstellar* unique, and the reason behind its complex temporal structure, is the vast distance between these two perspectives. The characters that venture out into space go beyond our solar system, placing them lightyears[146] away from the characters and events taking place on Earth. With this in mind, the first and most apparent conundrum is how an overall storyworld timeline can be created (designating events as before and after) when certain events take place in another galaxy.

Although time is at the centre of *Interstellar's* storyworld and Nolan utilises prolepses and analepses (similar to *Dunkirk*) in the film, this is not enough to define the film as polychronic. The distortion of time and its unique effect on the storyworld needs to be investigated. As was seen in *Dunkirk*, this entails examining if Nolan has exploited inexactness in *Interstellar* to create indeterminate events as well as how these indeterminate events are coded (inexact or inherently inexact). This will be conducted in a fashion similar to that seen in section 4.1. However, there will not be a section concerning the real-world history behind the movie. Therefore, a brief synopsis of the film [147]will follow, after which the analysis of *Interstellar's* temporal structure will commence.

A Synopsis of Interstellar

The film revolves around humanity's desperate need to find another home planet. Earth has been subjected to a blight, destroying all forms of agriculture until it was only possible to grow corn. The film does not expand much on this catastrophe. It is, however, made clear that Earth can no longer support humanity.

The film commences with Cooper (Matthew McConaughey) waking up from a nightmare in which he desperately tries to prevent his aircraft from crashing. Soon after, Cooper's ten-year-old daughter,

[145] Its effects on individuals or on a global scale. For instance, this section will show that the manipulation of time is used globally to save mankind, whereas, in *Inception*, it is used by a few individuals; the effect is limited to *their* lives.
[146] One lightyear is equivalent to 9.5 trillion kilometres.
[147] As brief as one can get with a 3-hour-long movie.

Murph[148]checks up on her father. The two perspectives in the film follow these two main characters. During breakfast, Murph asks Cooper if he can fix her broken Apollo figurine; she blames a ghost for breaking it. Her brother, Tom[149], teases her. At first, Cooper states that ghosts do not exist but is encouraged by Donald (John Lithgow) — Tom's and Murph's grandfather and Cooper's father-in-law — not to dismiss Murph's imagination. Cooper decides to encourage Murph's scientific curiosity by stating that he will investigate further if she provides him with a report containing her evidence and conclusion.

The movie continues with Cooper driving Murph and Tom to school. Soon after, a tyre bursts. While trying to repair the tyre, an Indian surveillance drone flies over their heads; they quickly pursue it. After hacking the drone, they capture it and place it on Cooper's truck. Once they reach the school, Cooper is told that he has to attend a meeting with the school principal and Murph's history teacher. The principal informs Cooper that Tom's grades are not good enough, but he will make a good farmer. Cooper is displeased by this, but he is more infuriated with Murph's history teacher for informing her that the Apollo moon landing was faked. Cooper defends Murph by claiming that she is correct and that humanity is a shell of itself. Due to Cooper's temper and argument with the principal and history teacher, Murph is suspended.

On their way back to the farmhouse, Cooper receives a message through his radio that the farm's tractors are behaving strangely. Upon investigation, Cooper determines that their navigation system malfunctioned. However, what's peculiar is that all the tractors gathered around his house. Cooper enters the farmhouse and sees that a bundle of books have fallen on the floor in Murph's room. Murph explains that she believes the ghost is trying to communicate. Cooper dismisses this and returns to fixing the tractors' navigation system. Afterwards, Cooper confides in Donald about humanity's recent reluctance to explore and pioneer.

While attending a baseball game, a large dust storm appears, and Cooper, Donald, Tom, and Murph drive home. Once they reach the farmhouse, the dust storm is already in full swing. Cooper asks if they closed all the windows; Murph runs up the stairs to her room. Cooper follows her and realises that her window is open. He quickly closes the window, but the two see strange lines of dust on the floor. Fascinated by this, Cooper tells Murph to sleep in Tom's room for the night while he investigates. The next morning, Cooper claims that the lines are binary and concludes that they are coordinates. He quickly finds a map and marks where the coordinates lead to. Immediately after, Cooper gets ready to leave but commands Murph to stay. While on the road, Cooper reaches for his beverage only to find Murph hiding under a blanket. The two drive to the unknown location.

By nightfall, Cooper and Murph reach a locked fence. When Cooper attempts to break the lock, he is tasered; he and Murph are taken inside. Once Cooper gains consciousness, he is interrogated by a military robot named Tars. Cooper demands to see Murph, after which Dr. Brand (Anne Hathaway) enters and reassures

[148] Played by Mackenzie Foy (young girl), then later by Jessica Chastain (adult).
[149] Played by Timothée Chalamet (young boy), then later by Casey Affleck (adult).

Cooper that Murph is well; she escorts him into a facility where a meeting is being held. Cooper enters a boardroom full of well-dressed people; Murph runs and gives Cooper a hug. Cooper is interrogated about how he was able to find what seems to be a top-secret facility. However, while trying to fabricate a story about how they found the secret base, Murph interrupts her father by claiming that gravity sent them there.

Murph's claim interests the board members, who, before continuing their interrogation, decide to introduce themselves. Cooper is informed that the facility is NASA (*National Aeronautics and Space Administration*), the same organisation Cooper belonged to in the past as a pilot. This takes Cooper back as he was under the assumption that NASA no longer existed. Professor Brand[150] (Michael Caine) takes Cooper on a tour of the facility and begins to explain their purpose. Professor Brand explains that soon, corn will also die to the blight and that humanity's last chance is to find a new home in another galaxy. Professor Brand's speech has a motive: convincing Cooper to pilot NASA's spacecraft, that he was sent here for a reason. Cooper's first concern is that humanity does not have the technology to travel such a distance in only a few years. Professor Brand states that he cannot disclose any information until Cooper accepts; he urges Cooper to save humanity.

Cooper appears to be seriously considering Professor Brand's proposal and begins to receive a brief on NASA's current project. Romilly (David Gyasi) begins to explain that 50 years ago, strange anomalies began to appear in the solar system, the most significant one being a wormhole near Saturn. Professor Brand explains that it leads to another galaxy. Cooper, confused, argues that wormholes do not appear naturally. Dr Brand confirms this by claiming that 'they' – at this point in the film, no one knows who or what 'they' are – have placed the wormhole for humanity to travel to other galaxies. Professor Brand states that they have sent probes through the wormhole, discovering 12 possibly habitable planets. Once these planets were discovered, NASA sent twelve astronauts (rangers), one for each planet. Their mission was to investigate the planet, gather data, and send out a signal if their planet was habitable. The only problem was that NASA did not have enough resources to rescue a ranger if their planet was not habitable; thus, the ranger would have to be left stranded. They confirm that three possible planets within one solar system showed promise. Cooper inquiries about what occurs after they confirm the planet is habitable.

Professor Brand begins to show Cooper the facility again, claiming there are two plans, plan A and B. Plan A entails Professor Brand solving an equation that would allow them to harness and control gravity. Moreover, if this equation is solved, their facility is designed to act as a space station that could transport thousands of people to their new home planet. Plan B involves a "population bomb": over 5000 fertilised eggs will be incubated on the habitable planet. After another conversation with Professor Brand (he promises Cooper that he will have solved the equation before Cooper returns from his mission), Cooper accepts. Once he and Murph return to the farmhouse, Murph runs upstairs and locks herself in her room. The next morning, Cooper tries to reason with her, but she pleads for him to stay, stating that the message her 'ghost' sent said "stay". Cooper's decision does not change, and he gives her a watch to remember him by.

[150] Dr. Brand's father.

The film transitions to Cooper, Dr. Brand, Romilly, Doyal (Wes Bentley), and Tars (The robot that captured Cooper outside the facility) launching into space. Once they have successfully entered space, they board their space station, *The Endurance*. Once on board, they plot their course and make the necessary checks before going into cryosleep. Two years later, they awake from their slumber; they are near the wormhole. The first thing Cooper does is watch any video messages that his family has sent. Tom can be seen talking about his success in school, and Donald informs Cooper that Murph is as stubborn as her father and has not left a message. The crew prepare to enter the wormhole; Romilly explains to Cooper how the wormhole works. Once they enter the wormhole, their surroundings (stars, planets, galaxies) form a tube-like structure which they pass through. While travelling through the wormhole, Dr. Brand encounters an anomaly in the form of a hand. She shakes it, believing it to be the entities ('they') that led them there.

Soon, they leave the wormhole and enter a different galaxy. The crew wastes no time deciding which planet to visit first. They decide to visit "Miller's planet" due to the ranger discovering water on the planet. Although this sounds intriguing, there is one problem: Miller's planet is on the horizon of a giant black hole. The black hole's immense gravitational pull causes their time to slow down compared to Earth's. This means that one hour spent on Miller's planet is equivalent to seven years on Earth. Despite this daunting obstacle, the crew cannot ignore that the planet harbours organic water; therefore, they decide to investigate Miller's planet first. Cooper, displeased about the time issue, suggests that *The Endurance* be stationed just outside of the black hole's gravitational reach. This will allow Romilly to remain in Earth time, thus allowing him to study the black hole for years while Cooper and crew investigate the planet.

Cooper, Dr. Brand, Doyle and Case (another robot like Tars) fly down to the planet. As they arrive, the planet seems to be fully submerged in water, as if they landed in the middle of an ocean. Dr. Brand, Doyle and Case leave the ship to find Miller's station. They soon discover that the station has been destroyed. Cooper sees a massive wave approaching in the distance and calls the crew back. Dr. Brand, not heeding Cooper's warning, tries to recover Miller's data. In doing so, she is trapped by debris. Case is ordered to rescue her, but the wave has almost reached them. With only a second left, Case and Dr Brand board the ship, but unfortunately, Doyle is swept away at the last minute. The ship is swept up, almost surfing the wave. Once the wave has passed, Cooper desperately tries to start the engines, but they are flooded, requiring close to an hour to drain – this has cost them decades.

While arguing, Cooper does not understand why Miller's station kept pinning for years that the planet was habitable if it was destroyed. Dr. Brand explains that from their perspective (on Earth), Miller's station has been pinging for years; however, on the planet, it has only been a few hours. After their argument, another wave begins to approach. Cooper is able to start the engine and just escape.

Once Cooper and Dr. Brand board *The Endurance*, Romilly waits to greet them; he is visibly older. Romilly states that he has waited 23 years, 4 months, and eight days. Cooper, upset, rushes to watch any messages that were left for him. Tom is seen through the years: at seventeen, when he claims to have met the girl of his dreams, then again in his twenties when his first son is born, again sometime later when his firstborn and Donald dies, and lastly, when he tells Cooper that he is letting him go. The screen goes black for a few seconds, and then Murph appears. She is clearly much older and in a sombre state. She confesses to Cooper that the only reason she is recording herself is because it is her 35th birthday; the same age Cooper was when he left Earth. Murph's reason for recording a message on this specific birthday is to remind Cooper of his statement to Murph before he left Earth: "By the time I get back, we might even be the same age. You and me. Imagine that…" (Nolan, 2014).

Cooper, Dr. Brand, and Romilly discuss which planet they should visit next, Dr. Mann's planet or Edmund's; they only have enough resources to visit one. Dr. Brand wants to go to Edmund's. However, Cooper protests, arguing that her decision is based on her previous romantic relationship with Edmund. Because of this, they travel to Dr. Mann's planet.

Back on Earth, Professor Brand lies in the hospital; his last words to Murph are that he lied about Plan A; there never was an intent to solve the equation. Murph later records a message for Dr Brand, informing her of her father's death. Before she ends the recording, she confronts Dr. Brand about whether she knew about Professor Brand's lie and if Cooper knew before leaving her behind on earth to die. Although the message is seen being broadcast in *The Endurance*, no one is able to see it as the crew's ship is seen travelling to Dr. Mann's planet. Once Cooper and crew land on the planet, they make their way to Dr. Mann's station. Once inside, they open Dr. Mann's cryo-sleep chamber, and he emerges, crying once he sees them. Later, Dr. Mann (Matt Damon) describes his planet and the supposed habitable properties it possesses. While they discuss the planet, Tars informs Dr. Brand that a message has been sent to her from Earth. She listens to the message, and Cooper is distraught to hear that Professor Brand was lying.

Upon hearing that no attempt was ever made to save the people on Earth, Cooper demands to return home. The following day, Cooper prepares to travel back home. However, he is willing to help the rest of the crew to set up their base first. Romilly requests that while returning home Cooper should drop Tars into the black hole. In doing so, Tars might be able to gather the necessary data needed to solve the gravitational equation. Cooper requests that Dr. Mann escort him to the designated sites for their base. While travelling to these sites, Dr. Mann monologues about human connection before pushing Cooper over a ledge. While the two wrestle, Dr. Mann admits to faking his data so that he would get rescued. Cooper's helmet is cracked, causing him to suffocate. While Dr. Mann walks away, leaving Cooper to die, Cooper radios Dr. Brand for help. Dr. Brand is able to reach Cooper in time, and they board a ship. Unfortunately, while trying to access Dr. Mann's data, the station explodes, killing Romilly. Dr. Mann takes possession of a different ship and flies towards *The Endurance*. While pursuing Dr. Mann, Cooper and Dr. Brand warn him not to board *The*

Endurance as the boarding procedure was unsuccessful. Despite their warnings, Dr Mann opens the hatch leading into *The Endurance*, causing some of it to explode. Afterwards, Cooper and Dr. Brand board *The Endurance*; luckily, there was no damage to the fertilised eggs. However, there are not enough resources for Cooper to return home.

Cooper and Dr. Brand decide to travel to Edmund's planet by using the black hole as a slingshot – as seen with Miller's planet, the black hole's gravitational pull is immense. Thus, the few seconds they spent around the black hole was equivalent to 51 years on Earth. While doing so, Tars is ejected into the black hole, and soon after, without informing Dr. Brand beforehand, Cooper also ejects into the black hole.

While in the black hole, Cooper witnesses his past and that of his daughter—specifically, the events that dealt with her 'ghost'. Here, Cooper realises that he can exert a force (gravity) that can transverse the dimensions of time and space. Tars is able to communicate with Cooper; he has captured all the data needed but cannot find a way to send it to Earth. Cooper devises a plane to use the watch he gave Murph as a child to translate the data into Morse code. He realises that the black hole was not placed by celestial beings. Instead, it was a future humanity that had evolved past the five dimensions. Once he has transferred the data into Murph's watch, he is ejected from the black hole.

Back on Earth, Murph is upset about Professor Brand's lie. She does not believe that humanity is doomed. Desperate for answers, she returns to her childhood room where she realises that the ghost was her father all along: the books falling, and the binary code was caused by Cooper while in the black hole decades in the future. Understanding this, she rummages for anything that is of worth. She stumbles upon her watch and realises that a message is being sent in Morse code. After deciphering the code, she is successfully able to solve the gravitational equation and save humanity.

After being ejected from the black hole, Cooper wakes up in a hospital bed. He is told that, technically, he is 120 years old, although he still looks younger. He was saved by a passing ship and is now held aboard the Cooper Station (named after his daughter). He is also informed that Murph is alive and is on her way. Once she arrives, Cooper visits her. Her family surrounds Murph and is visibly old. After an emotional reunion, Murph tells Cooper that he must find Dr. Brand. Leaving Murph with her family, Cooper sets out to find Dr. Brand, who has successfully landed on Edmund's planet.

The Analysis of Polychronic Narration in Interstellar

Considering all that has been said thus far, it is clear that *Interstellar* uses time uniquely. This is most prevalent from the fact that the two perspectives (Murph and Cooper) occupy vastly different positions in the storyworld: Murph's perspective focuses on her and Earth's attempt to survive, while Cooper's perspective involves the mission in outer space. From the above summary, it becomes evident that, at times, the

storyworld's temporal relationship between the two perspectives does not move in unison: Cooper at one 'time' occupies a space where one hour equals seven years on Earth (Murph's perspective). With this in mind, is it possible to construct a global storyworld timeline when the film shifts between two perspectives that occupy such radical space/time positions? Moreover, towards the end of the film, it is revealed that within the storyworld, the past/present can be affected by the future. Therefore, time does not move in a lateral nature (moving straightforwardly in a cause-and-effect manner); rather, it moves bilaterally (moving forward and backwards at the same time). This is similar to *The White Hotel,* where actions in the future have an effect on the past/present. Considering this, how can events that occur once but occupy multiple times be labelled as before or after, as occurring definitively in the past, present or future? Although these questions are important when investigating polychronic narration, the first step is to identify the narrative as coded inexactly or as inherently inexact.

In the previous section, *Dunkirk* was classified as inexactly coded because Nolan purposely deformed time by switching between three different perspectives (manipulating the narrative's *discourse)*. During many scenarios, a viewer would see the perspective of character(s) occupying a time ahead of the following perspective – this would specifically occur during the Farrier and Collins scenes. Therefore, the film *depicts* the effects before the cause: the audience sees oil in the water before seeing how the destroyer is bombed. This time alteration is not due to the storyworld's time itself being multiple; i.e. a part of the narrative's *story*. Rather, Nolan makes a deliberate stylistic choice to present a fractured narrative.

When considering *Interstellar,* it has been noted that time deformation is, first, due to the radical distance between the two perspectives, as well as Cooper's actions in the wormhole. Importantly, the characters' experience of time alteration is not due to their unique perspective of the world around them; i.e. where only they experience a strange deformation of time not inherent to the narrative's *story* (*Memento)*[151]. Instead, the experience of time deformation is an inherent quality within the storyworld: on Miller's planet[152], time moves exponentially slower in comparison to Earth's, not because of a stylistic choice made by Nolan nor due to the subjective experience of the character(s). Moreover, it is not only through Cooper's perspective that past, present and future are connected within the wormhole; it is an inherent aspect within the storyworld that allows Cooper to send messages into the past using gravity. Considering this, *Interstellar* can be definitively defined as belonging to Herman's category of inherently inexact coded narratives: "a storyworld in which events themselves are coded as irreducibly temporally multiple" (Herman, 2004:219).

At first, defining *Interstellar* as inherently inexact would lead one to assume that the narrative must be multiply ordered rather than partial. Although this was the case in Herman's analysis of *The White Hotel*, it does not mean that the same can be said for *Interstellar*. It was argued in section 3.3.1.2 that Herman does

[151] The main protagonist in *Memento* perceives time as fractured, due to his condition (Anterograde amnesia). The narrative's time is deformed because the storyworld is perceived through the perspective of the main protagonist; thus, *discourse* is used to manipulate the *story* of the narrative.
[152] The reader is reminded that the planets in *Interstellar* are named after the astronauts who sacrificed their lives to investigate whether the planet was habitable.

not expand on narratives that may be coded as inherently inexact but ordered partially. Moreover, it was stated that Herman does not provide an example of a film incorporating inherently inexact coded narratives. For this reason, *Interstellar's* order of polychronic narration needs to be examined before being defined as partially or multiply ordered.

The analysis of *Interstellar* will be conducted in a fashion similar to that of *Dunkirk*. However, three Figures will be provided instead of two. The reason for the third figure (Figure 7) is to represent the inherently complex nature of time within the *story* of the narrative. As will be seen, certain events within *Interstellar* that occupy different temporal positions (past and future) exist 'simultaneously'. This does not bring into question where their order is on the narrative timeline, rather, temporal order itself (cause and effect) is brought into question. Herman does not provide a method for documenting indeterminate events of this complexity. For this reason, Figure 7 and Figure 5 are this study's attempts at adapting Herman's method to accommodate such radical indeterminate events as employed by Nolan.

Figure 5 showcases an attempted (re)construction of *Interstellar's* storyworld timeline. Figure 5 resembles the same kind of construction (Figure 3) as seen in *Dunkirk's* analysis with one difference: the colour red will be used to indicate events in *Interstellar* that were mentioned to exist 'simultaneously' with other events occupying a different temporal position in the narrative (past or future). Besides this, events enclosed in brackets still indicate an indefinite order of sequencing, and events accompanied by a question mark indicate their more radically indeterminate nature along the timeline. This figure is the most logical way of presenting *Interstellar's* indeterminate events along a story timeline. Figure 6 resembles the order of events shown to the viewer; this highlights the film's alternation between the two perspectives and its unique use of analepsis and prolepsis at certain points in the narrative. Lastly, Figure 7 resembles the inherent radical nature of time within the narrative; here events that occupy vastly different 'times' in the narrative (past and future) but occur 'simultaneously', thus affecting each other directly, are placed next to each other. For example, Events **4**, **120** and **121** are placed together as they are temporally linked, even though Events **120** and **121** occur plus-minus 85 years after Event **4**. As will be seen, this creates a complex distortion of time where a future event's effect is felt in the past; therefore, the past still develops simultaneously with the future, bringing into question the true nature of time's movement.

Figure 5: *Interstellar's* (Re)Constructed Storyworld Timeline

<---1-2-3?-4-5-6-7-8-9-10-11-12-13-14-15-16-17-18-19-20-21-22-23-24-25-26-27-28-29-30-31-32-33-34-35-36-37-38-39-40-41-42-43-44-45-46-47-48-49-50-51-[52-53-54-55-56-57-58-59-60-61-62-63-64]-65-66-67-68-69-70-71-72?-73?-74-75-76-77-78-79-80-81-[82-83-84-85-86-87-88-89-90-91-92-93-94-95-96-97-98-99-100-101-102-103-104-105-106-107-108-109-110-111-112-113-114-115-116-117]-[118-119-120-121-122-123-124-125-126-127]-128a-128b-128c-128d-129?-130-131-132-133-134-135-136--->

Figure 6: Order of Events Presented to The Viewer

1, 2, 3a, 128b, 3128c, 3a, 3b, 128d, 3b, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55. 56, 57, 58, 59, 64, 65, 66, 67, 68, 70, 71, 72, 73, 74, 75 , 76, 77, 78, 79, 80, 81, 82, 83, 84, 29, 84, 92, 93, 94, 85, 94, 85, 29, 85, 95, 96, 97, 85, 95, 96, 97, 85, 97, 85, 98, 85, 97, 86, 97, 86, 97, 86, 97, 99, 86, 99, 100, 86, 97, 99, 86, 1001, 86, 101, 86, 100, 101, 102, 101, 103, 87, 104, 105, 106, 88, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 88, 119, 120, 121, 5, 88, 121 5, 121, 88, 121, 122, 88, 29 , 88, 29, 122, 29, 122 31, 88, 122, 88, 122, 88, 122, 88, 122, 31, 122, 88, 122, 88, 122, 88, 122, 88, 122, 88, 122, 123, 88, 123, 124, 88, 124, 88, 16, 88, 124, 88, 124, 88, 124, 125, 126, 88, 126, 88, 126, 88, 89, 90, 91, 127, 130, 131, 132, 133, 134, 135, 129a, 136, 129b, 136, 129, b, 136, 129b, 136, 129b

Figure 7: Reconstruction Showing Simultaneity of Events in *Interstellar*

<---1-2-3?-4-120-121-5-6-7-8-9-10-11-12-13-14-15-16-124-17-18-19-20-21-22-23-24-25-26-27-28-29-122-30-31-122-32-33-34-35-36-37-38-39-40-41-42-43-44-45-46-47-48-127-49-50-51-[52-53-54-55-56-57-58-59-60-61-62-63-64]-65-66-67-68-69-70-71-72?-73?-74-75-76-77-78-79-80-81-[82-83-84-85-86-87-88-89-90-91-92-93-94-95-96-97-98-99-100-101-102-103-104-105-106-107-108-109-110-111-112-112-114-115-116-117]-[118-119-120-4-121-122-29-31-123-124-125-126-127-48]-128a-128b-128c-128d-129?-130-131-132-133-134-135-136--->

At first glance, it is evident that *Interstellar* is a far larger narrative than *Dunkirk*: 136 events as opposed to 74. However, the most prominent difference is that *Interstellar* contains three forms of indeterminacy instead of two. As stated earlier, events marked in red represent instances where events occupying different times (past, present and future) intersect. Due to the complexity of these events and to provide the most comprehensible analysis, we will first examine the radical instances of indeterminacy (Events **3**, **72**, **73** and **129** in Figure 5). Secondly, the first two brackets in Figure 5 will be investigated. Lastly, the events marked in red will be examined along with bracket three in Figure 5 (and in relation to Figure 7).

Interstellar's radical indeterminate events occur early on in the timeline. As early as Event **3**, a viewer is presented with a largely indeterminate event. The event showcases Donald cleaning the porch and kitchen. The scene is accompanied by a voice-over originating at Event **128b**, where an elderly woman explains the severity of dust that plagued the people on Earth. This is emphasised by depicting Donald wiping away thick layers of dust in the kitchen. I argue this event is strongly indeterminate because there is not enough information provided (visual or auditory) to place this event definitively along a large portion of the timeline. Indeed, after this scene occurs, there is a cut to where Cooper and his family are having breakfast (Event **5**), leading one to assume the scenes of Donald cleaning would occur before this event. The issue with this assumption is that Event **5** depicts a relatively spotless kitchen, nearly impossible to achieve from all the dust depicted in Event **3**. In fact, it would be more accurate to argue that Event **3** occurs after Event **16**. This is because of the large dust storm that swept over their farmhouse, coating the outside and inside (due to Murph

leaving her window open) with dust. Apart from this, it can also be argued that Event **3** could occur any time before Event **62** (Tom informs Cooper that Donald has passed away). This is because Event **3** provides no indication as to whether it occurs before or after Cooper's departure from Earth[153]. Therefore, Event **3** is radically, if not fully indeterminate, similar to Events **w** and **x** in *The Sweet Hereafter* and Events **60**, **62**, **63**, **64**, and **66** in *Dunkirk*. Considering this, it would not be wrong for a viewer to prefer placing Event **3** after Event **16** or anywhere before Event **62**.

The next two radically indeterminate events occur much later in the film: Events **72** and **73**. During these events, Murph and Tom watch a section of the crop field burn (Event **72**). Tom claims they will make up for it by using Nelson's farm (Tom's neighbour) next year. Murph enquires about what befell Nelson, but no answer is provided as Tom slowly walks away. An assumption can be made that Nelson has passed away, most likely from breathing in large amounts of dust[154]. The film cuts to Murph, Tom, Lois (Leah Cairns) and Coop (William Dickinson)[155] eating a late lunch (Event **73)**. It is seen that the only food left to consume is corn; Tom's wife has prepared corn in various ways, clearly trying to make do with what they have. It is also seen that Tom's son is coughing relentlessly, indicating that he is suffering from a respiratory illness. Although Murph offers help by claiming she has a friend who can examine Coop's lungs, it is clear that Tom is beyond any help.

These two events are shown after Cooper and Dr. Brand return from Miller's Planet. Therefore, it seems logical that they should be placed in temporal positions **72** and **73**. However, no visual or auditory information is provided to confirm this placement. Before these two events, Cooper and Dr. Brand spent three hours and thirteen minutes on Miller's planet, while on Earth, twenty-three years have passed. This means that Events **72** and **73** could have occurred at any time while Cooper and Dr. Brand were on Miller's planet, symbolising Cooper's tragic loss of time; time he could have spent with his family. An argument can, however, also be made for these events occurring *after* their return from Miller's planet. By juxtapositioning Cooper's little time spent on Miller's planet with the radical amount of time passed on Earth, time's fragility is emphasised. Events **72** and **73** could also occur any time before Event **84,** as anything afterwards concerns Murph's attempt to lead Lois and Coop away from the farmhouse and her eventual discovery of the message hidden in her watch.

The last event argued to be radically indeterminate is Event **129a/b**. This event depicts Dr. Brand arriving on Edmund's planet – she is clearly distraught, assuming that Edmund has passed away – and the second scene

153 During event 3, Cooper's laptop is shown full of dust, which Donald wipes off. This could be an indication that this event occurred before Cooper left for his mission. However, it can also be argued that due to the laptop's assumed purpose (reading weather patterns) and the fact that there is no event showcasing Cooper using the laptop on his mission, that the laptop was left behind for Cooper or Tom – it is more viable to assume that the laptop was left behind for Tom, seeing as Tom inherits the farming business.

154 The film places emphasis on the fact that humanity will eventually suffocate. Dr. Brand informs Cooper that "the last to starve will be the first to suffocate" (Nolan, 2014).

155 Tom's wife and son.

depicts her kneeling next to a stone grave; behind her is a fully constructed headquarters[156]. The film does not clarify how far Dr. Brand would need to travel to Edmund's planet after she left the black hole. Therefore, Event **129** can be placed sometime before Event **128** (Interviews are conducted about Murph's life on Earth) or **135** (Cooper steals a ship to find Dr Brand) or after **135**. It should also be noted that fifty-one years passed on Earth while Cooper and Dr Brand were being slingshot around the black hole. This makes it incredibly difficult to place Event **129**. If Dr. Brand needed to travel only a few months, it could be argued that Event **129** occurred before Events **128** or **130,** as these events occurred decades after Murph solved the gravitational equation. However, if we assume that it took less than fifty-one years for humanity to leave Earth, it is plausible that Event **129** occurred after **130**. It should also be taken into consideration that while Event **129** is being shown, Murph's voice is heard asking Cooper to go find her: "She's out there setting up camp alone in a strange galaxy. Maybe right now she's settling in for the long nap [cryosleep] by the light of our new sun, in our new home" (Nolan, 2017). Although this points towards Event **129** occurring sometime before Event **130,** Murph makes it clear that they don't know her exact situation. Therefore, Event **129** remains radically indeterminate.

Following our examination of the film's radical indeterminate events, brackets one and two will be investigated. Bracket one concerns Dr. Brand and Cooper's time on Miller's planet, which has already been briefly touched on in the above discussions. It has been mentioned that on Miller's planet, time moves slower than on Earth. To be exact, one hour on Miller's planet is equivalent to seven years on Earth. Bracket one includes the events that took place on Miller's planet as well as what took place on Earth at the 'same time'. Events **52** to **58** describe the experiences Dr. Brand, Cooper, and Doyle had on Miller's planet. Once they landed, they found that Dr. Miller's station had been destroyed and that the entire planet seemed to be covered in water. Due to a large wave that quickly approached them, Dr. Brand barely made it on board the ship; unfortunately, Doyle was swept away. The wave caused the ship's engines to flood, requiring the crew to first drain them before Cooper could fly away; the draining would take close to an hour, costing them valuable time (and not just in the normal sense).

While arguing, Cooper asks Dr. Brand how Miller's beacon – used to send a signal to NASA that the planet was habitable – pinged for years when clearly the station was destroyed. Dr. Brand informs Cooper that it is due to "time slippage", that on Earth, the beacon was pinging for years, but on the planet, Miller had only landed a few hours ago and died only a few minutes ago. Out of desperation, Cooper asks if there is any way to get back the 'Earth' years they have spent on the planet. Dr. Brand explains how that is not possible: "Time is relative. It can stretch, and it can squeeze, but it can't run backwards; it just can't. The only thing that can move across dimensions, like time, is gravity" (Nolan, 2017). After their discussion, another wave threatens to sweep them away; luckily, Cooper is able to start the engines and fly back to *The Endurance*.

[156] This headquarters was constructed by Dr. Brand and has what Cooper mentioned on Dr. Mann's planet: a lab and two habitat structures.

Once they board, Romilly is seen waiting. He informs them that he has been waiting 23 years, 4 months, and 8 days. Out of shock, Cooper rushes to see if he has received any messages from Earth.

Events **60** to **63** involve the events that took place on Earth, specifically in relation to the messages that were recorded. The film shows Tom's messages: one when he was seventeen, another when he was in his twenties and the last one when he was in his thirties. In the first message, Tom speaks about his achievements at school and about a girl he met; in the second, he shows Cooper his newborn son, Cooper's grandson. Thirdly, Tom is shown in a sombre state when he informs Cooper that Donald has passed away; they buried him next to Tom's firstborn son, who has also passed away– although it is not revealed exactly when Tom's son died. In this message, Tom also says that he is "letting go" of Cooper, indicating that Tom no longer has any hope of Cooper's return. Event **63** is Murph's only message, where she states that it is her birthday and that she's the same age as Cooper was when he left Earth – when Cooper says goodbye to Murph at Event **31**, he tries to reconcile with her by stating that when he returns, they might be the same age. The last event in this bracket, **64**, shows Cooper watching the above messages.

I have chosen to describe the events within the first bracket, as it is imperative to compare the time spent on Miller's planet with the events on Earth. When constructing a narrative's global storyworld timeline, we cannot regard these two perspectives as separate. True, it can be argued that they occupy two different diegetic worlds, thus belonging to their own time and space. However, the two diegetic worlds are contained within one storyworld (within one universe): they are not separated by alternate realities, neither do they occupy different 'points' in time (past and future). Both perspectives occur in the present; it is due to the storyworld's inherent complexity vis-à-vis time that an indeterminate relationship between the two perspectives is created. On Miller's planet, Tom's recordings do not occur in the past, nor do Cooper's actions belong in the future at the time of Tom's recordings. These events inhabit the present, but the acceleration of time is faster on Earth than on Miller's planet. Considering this, how is it possible to definitively classify the events on Earth as before or after Cooper's actions on Miller's planet? The logical way of temporally relating these two perspectives is by arguing that the first few minutes on Miller's planet is when Tom records his message at seventeen. Towards the halfway mark on Miller's planet, Tom's second recording most likely occurred as he was in his twenties. Lastly, it can be argued that Tom's third recording, when he was in his thirties, occurred towards the end of Cooper's time on Miller's planet.

From the above information, it is clear that the indefinite events contained in bracket one are different from those seen in *The Sweet Hereafter* and *Dunkirk*. Although, in each case, the events' indefiniteness is isolated on the timeline (restricted polychrony), *Interstellar's* indefiniteness is rooted in the inherent deformation of time. Whereas in *The Sweet Hereafter,* indefiniteness is caused by a lack of information, and in *Dunkirk,* by the constant switch between prolepsis and analepsis (switching between the three perspectives), in *Interstellar's* case, it can only be vaguely determined at which point Tom's recording took place while Cooper was on Miller's planet. However, it is impossible to *definitively* place the events on Earth as

occurring before or after any event that is taking place on Miller's planet. Thus, it can by no means be determined temporally when Tom's son's and Donald's deaths occurred in relation to Cooper's time on Miller's planet. Hence, these events are indefinite as their sequence within the bracket is inexact.

Before moving on to the second bracket, a brief discussion about Events **63** (Murph's recording to Cooper) and **64** (Cooper watching Tom's and Murph's message(s)) should be conducted. The reason for placing emphasis on the relationship between these events is because if it is assumed that **63** does not occur *directly* before **64**, then the temporal relationship between Cooper's perspective and Earth's becomes completely detached. To elaborate, in the film, it is assumed that the movement of time on Earth is relatively the same as in space (Cooper's perspective). Understanding this, once Cooper has returned from Miller's planet, he is once again in line with Earth's time. Therefore, the narrative's storyworld timeline can resume a normal sequence. After Cooper has finished watching Tom's messages, the screen turns off for a few seconds and then on again, displaying Murph's recording. After Cooper has watched Murph's message, the film cuts to Murph's perspective on Earth, where she is seen switching off the recording device. The film thus leads one to assume that Cooper watches Murph's recording not long after she has recorded it[157]. In doing so, Nolan eases the viewer back into a familiar notion of time and connects the two perspectives, thus allowing the narrative to resume its course with both perspectives moving simultaneously.

Bracket 2 involves a similar time distortion as that seen in bracket 1. Cooper and crew, along with Dr. Mann, are on Dr. Mann's planet. Similar to Miller's planet[158], time moves slower. Again, there is a sizeable difference between the two perspectives on the movement of time: Dr. Mann's planet's time moves slower than Earth's. The Events in bracket two (**82** to **117**) involve Cooper's experiences on Dr Mann's planet, Murph's discovery of the watch and Cooper's identity as her past 'ghost'. Similar to *Dunkirk*, the film shifts between these perspectives, creating a constant back-and-forth between Cooper and Murph. While on Dr. Mann's planet, Dr. Brand receives a message concerning her father's death, as well as Murph's revelation that Professor Brand was lying about trying to save the people on Earth. It is also seen that Murph leaves the following day (Earth's following day) to Tom's farmhouse, her childhood home, where she finds the watch. After Cooper hears Murph's message, he demands to leave and return to Earth.

Due to Dr. Brand receiving this message, it can be deduced that Murph's recording and Dr. Brand receiving the message are relatively close on the storyworld's timeline. The disconnect between Earth's events and the events on Dr Mann's planet occurs after Cooper demands to return home. From this point onwards, the film depicts Cooper's preparation to leave, Dr. Mann's betrayal, Romilly's death, Dr. Mann exploding a section

[157] I would argue that Cooper is, of course, not watching Murph's message *while* she is recording it, due to the vast distance between them. Even if we assume that communication technology has advanced greatly in 2067 (the year the movie is set), it would still take a couple of hours before a message from Earth reaches Cooper. Currently, it takes 83 minutes for a radio message to reach Saturn (O'Sullivan, 2017).

[158] Miller's planet and Dr. Mann's planet orbit around the black hole. However, Miller's planet is far closer to the black hole than Dr. Mann's, resulting in a higher gravitational pull from the black hole. Therefore, time will move more slower on Miller's planet than on Dr. Mann's due to the stronger gravitational effect.

of *The Endurance* (along with himself) and Cooper’s and Dr. Brand’s slingshot around the black hole – their slingshot accelerating their time vis-à-vis Earth by 51 years. While these events are being shown, there is a constant pattern of cutting to Murph’s perspective, from her argument with Tom, burning a portion of the crop field, searching her old room for answers and discovering the watch with the encoded message. By juxtaposing the events between these two perspectives, an impression is created that they occur roughly at the same time or at least relatively close to each other. However, when taking into account the drastic difference in time’s movement between the two perspectives (Murph’s perspective on Earth and Cooper’s experience on Dr. Mann’s planet), this becomes implausible and impossible. Moreover, it is certainly impossible to relate Cooper’s and Dr. Brand’s slingshot around the black hole with the events on Earth. Time is moving at an incomprehensible speed compared to Earth; a few seconds for Cooper and Dr. Brand is 51 years on Earth. In fact, it could even be argued that while slingshotting around the black hole, Dr. Brand and Cooper's temporal position is scattered along the narrative’s timeline beyond what the film shows. In theory, their position can inhabit the same temporal position as Earth’s construction of the space station, its eventual departure into space and humanity's residence in space, all in a matter of seconds. By no means can such an event be described temporally using classical methods; it is simply indeterminate and temporally multiple. Keeping in mind the above information, the most logical preference sequence for bracket two would be to argue that Murph’s events on Earth took place before the events on Dr. Mann’s planet (therefore before Cooper’s and Dr. Brand’s slingshot), due to the slow movement of time. However, this cannot be definitively argued.

Thus far, this section has discussed Nolan’s unique, complex, and inherent use of temporal deformation in *Interstellar*. What remains is an examination of the events demarcated in red in Figure 7. These events have been left for last as they present a more challenging case, and the discussions above have only slightly touched on the matter, aiding our understanding of the following discussion.

Following Event **3**, the first of the film's more intricate (inherently inexact) temporal events occurs at Event **4**. During this event, Murph sits on her bed, combing her hair. She is surprised when her Apollo figurine falls from the bookcase and breaks. Later in the film, it is revealed that what caused the books and figurine to fall was Cooper banging against the bookshelf at Event **120**. As can be seen, these events are years apart on the timeline in Figure 5; Murph is 10 years old while, theoretically speaking, Cooper is 120 years old. This means that Murph is experiencing the effects of an event that takes place **85** years in the future, similar to Lisa’s experiences in *The White Hotel*. What separates *Interstellar* from *The White Hotel* is the origin of future events affecting the past/present. In *The White Hotel,* future events do not purposefully affect the past/present. Whereas, in *Interstellar,* Cooper deliberately affects the past/present, through the black hole, to send messages. What is important to understand is that although Murph is experiencing the effects of an action 85 years in the future, these two events must not be considered separate. As seen in Figure 7, Events **4** and **120** are linked in a cause-and-effect manner: at the exact same ‘time’ Cooper hits the bookshelf in the future, Murph’s books and Apollo figurine fall in the past/present. This indicates that these two *times* are

linked in such a way that the past develops alongside the future, as the actions made in the future are affecting the past 'simultaneously'.

The same sort of occurrence can be seen shortly after at Event **16**. During Event **16**, Cooper and Murph are puzzled by the lines formed out of dust. It is later revealed that Cooper created these lines of dust 85 years in the future at Event **124**. Cooper creates these lines to represent coordinates to NASA. Again, during the present, Cooper and Murph are experiencing the effects of an action conducted in the future. This is not the only time Cooper sends a message from the future. At Event **29**, Murph is again sitting on her bed, upset about Cooper leaving. Books are seen again flying off of the bookshelf, which Murph investigates, believing that the books are being used to send a message using Morse code. When Cooper says goodbye to Murph the following morning, Murph explains that the message, in Morse code, reads "Stay". Cooper sent this message at Event **122**. After seeing his past-self leave, he also causes a book to fall at Event **31**.

Murph is not the only person Cooper interacts with from the future: while travelling out of the black hole (Event **127**), Cooper comes across *The Endurance* while he (his past self), Dr. Brand, Doyle and Romilly travel through the wormhole at Event **48**. Cooper reaches out his hand, which Dr. Brand shakes.

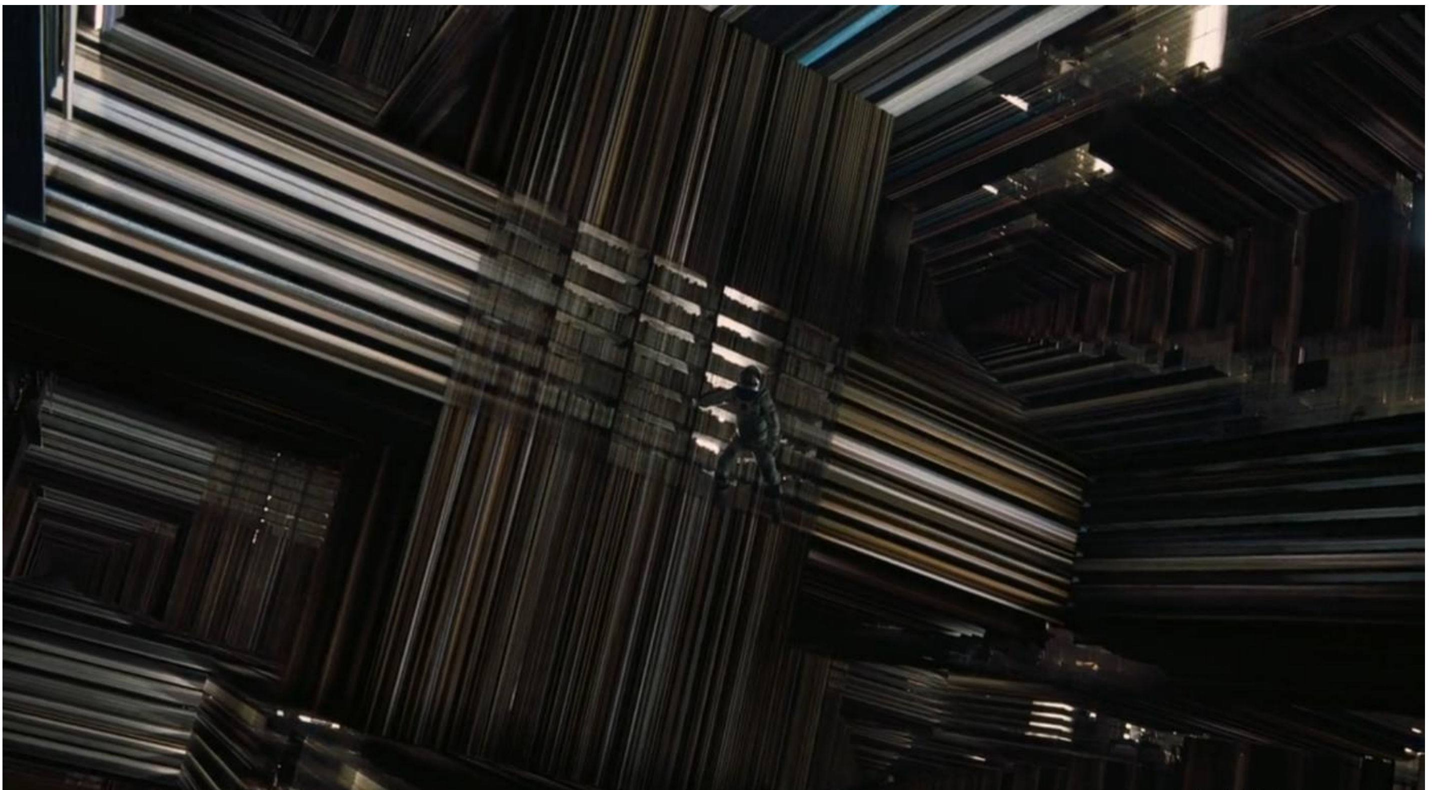
Considering the above information, the conundrum that arises is how these events are to be placed on a timeline using classical temporal theories such as Genette's. Causality is presented as anti-linear, where effects do not follow causes. This is not the same as in *Dunkirk,* where the film shows the effect of a destroyer being bombed before the cause, the actual bombing of the ship. Causality in *Dunkirk's* storyworld is chronological (time moves forward in a cause-and-effect manner); due to Nolan's decision to jump between the past, present and future, causality is fragmented but not undermined. If *Interstellar* conformed to Genette's temporal theory, the storyworld's timeline could be constructed, at least in theory, in a logical cause-and-effect manner. On the contrary, *Interstellar's* inherent movement of time, cause and effect, is not linear. Once the film has concluded, one cannot reconstruct these events onto a timeline as before or after. Effects in *Interstellar* are before their cause: Murph's books fall before Cooper pushes them off, while at the same *time*, these events are linked despite being separated by several years. Importantly, this is not a stylistic choice made by Nolan; time itself in *Interstellar* moves forward and backward simultaneously. In other words, the past/present develops at the same time as the future: the story continues with Cooper writing coordinates in the dust, while simultaneously events 85 years in the past are affected, thus developing the storyworld's already established events.

Referring back to Genette's theory, no aspects of his theory 'corner' time distortions as radical as the ones discussed above. Genette's only argument is that in narratives where prolepsis and analepsis are used to such an extent that an event cannot be defined as before or after, the event belongs to the atemporal category and, thus, is separate from the story's main timeline. This is inadequate when examining a narrative such as *Interstellar,* where the entire film's temporality inherently belongs to the 'atemporal'. By no means can a

logical timeline be (re)constructed for *Interstellar* because time intertwines to such an extent that the basis of temporality itself is questioned. If we are to argue that Cooper first sees the coordinates of NASA, then in the future, he creates these coordinates for himself; how is it that he initially arrived at NASA to be able to write these coordinates in the first place? Does Cooper's 'future' actions come before his present actions, or are future and present non-existent, only the NOW exists?

Besides Cooper's interaction with his past/present self and Murph, it was also stated that an interaction between his future self and past/present Dr. Brand took place. At Event **127**, Cooper is seen exiting the black hole. While doing so, he passes the exact moment *The Endurance* travels through the wormhole at Event **48**. Cooper reaches out to Dr Brand, who shakes Cooper's hand and claims it is "the first handshake" between them and the celestial 'they' (Nolan, 2017). This occurrence further emphasises the fact that the events in *Interstellar* do not abide by the traditional laws of chronology. It cannot be argued that Event **127** occurred before **48** as Cooper cannot exist simultaneously in two physical planes of existence. Nor can it be said that future Cooper travelled to the past or that Dr. Brand and past Cooper travelled to the future; they both exist in their own temporal dimension, yet they intersect. The film explicitly states that nothing can travel between temporal dimensions except gravity. When Cooper is in the black hole, he does not travel to the past; he merely sees it. There is a clear border between himself and the past Murph (see Figure 8). The same can be said for his interaction with Dr. Brand. The gravitational push is what Dr. Brand experiences, not Cooper's hand entering the past.

Figure 8: Cooper in The Black Hole Where He Interacts With The Past



Using Genette's terminology, it cannot be stated that Cooper shaking Dr. Brand's hand is analepsis or prolepsis. It should be clear that these events cannot be restricted to a temporal position of past and future, thus defining their appearance in the film as an example of analepsis or prolepsis. It does not indicate prolepsis when Murph sees the books fall. His action occurs *simultaneously* in the future and the past. Likewise, Cooper's handshake with Dr. Brand is not isolated. His action is experienced at Event **48** *and* Event **127**. Therefore, Genette's theory holds close to no applicability to *Interstellar*.

The only instances where it can be argued that Genette's distinction of analepsis or prolepsis can be used are in brackets one and two. Within bracket one, Cooper is watching Tom's recordings, which have been taken in the past. Therefore, the film essentially utilises a specific form of analepsis showing events that occurred 27 years ago (see *order* under section 3.3.1.1). In addition, the events in bracket two alter between Murph's perspective and Cooper's. Depending on how the viewer has ordered these events, based on their preference, analepsis and prolepsis are present. If the viewer has arranged Murph's events as occurring first, then the film utilises prolepsis when cutting to Cooper's perspective.

To take matters one step further, I have bracketed Cooper's actions in the black hole (bracket three) not because they are restricted to that portion of the timeline – that has been made clear – but because of the ambiguous nature surrounding the black hole. In Figure 8, it is seen that Cooper occupies a strange structure that allows him to interact with the past, not travel to it; this structure is referred to as a *tesseract* (a four-dimensional cube). Considering that Cooper inhabits this space where time is merely a dimension that can be transversed, does he occupy a temporal position? Is it that time, in its traditional sense, does not exist within the black hole and that, therefore, Cooper should not be 'positioned' in the past, future, or present. He occupies a dimension where time is like a book: he can page backwards and forwards. Moreover, when he exits the black hole, it is revealed that four years have passed since entering it (four years after Cooper and Dr. Brand's slingshot). Does this indicate that he travelled four years into the 'future', or is it another example of time moving at a different speed, as seen on Miller's planet?

Genette's theory's applicability has been shown to be insufficient when examining such a complex indeterminate narrative. However, it can also not be confidently argued that Herman's theory, as it stands, adequately analyses *Interstellar's* indeterminacy. It was stated in section 3.3.1.2, that Herman does not provide any examples of inherently inexact coded and multiply ordered films. It was also stated that Herman does not provide a figure detailing inherently coded multiply ordered indeterminate events. True, it was possible to utilise the same method seen in *The Sweet Hereafter* in *Dunkirk*; however, *Dunkirk's* indeterminacy was not inherently coded. For these reasons, a new method had to be adopted to (re)construct *Interstellar's* timeline in order to represent its indeterminacy in the most logical way. Hence, the additions made to Herman's method in Figure 5, where events are highlighted in red, indicate their inherent radical nature and their existence in multiple temporal frameworks. Although this succeeds in documenting *Interstellar's* indeterminacy, it does not correctly represent the inherently radical existence of time within the

narrative. Therefore, Figure 7 was constructed to act as a true representation of certain events existing in multiple temporal frameworks. These additions add to Herman's theory to allow for a more comprehensible understanding of inherently coded and multiply ordered events, where indeterminacy is pushed to the extreme by directors such as Nolan.

Considering all the arguments made thus far, *Interstellar* is clearly an example of polychronic narration. It is inherently coded due to the nature of time itself being complex. In addition, *Interstellar* is an example of multiply-ordered polychronic narration. However, this is not the same as *Dunkirk's* multiply-ordered structure. True, in both narratives, indeterminacy is used to entertain multiple ways of ordering. However, *Dunkirk* uses multiple ordering to bring attention to the fragmented nature of war and the miraculous and brave actions made by individuals. It emphasises that there is not one cause but a multitude that aided in the evacuation of soldiers. In contrast, *Interstellar* brings into question our very understanding of the nature of time. It challenges the reader on an ontological level, enticing them to question their assumed knowledge of temporality, of life. The viewer is presented with a world where time is not linear, where the here-and-now (present) may also be shared with a then-and-there (the future). This all brings into question the notion of a universal plan, the existence of a celestial power. Cooper believed that he was chosen by a higher power, only to realise that he had sent himself and given himself the coordinates for NASA. *Interstellar* is a narrative where time truly is multiple, presenting the ability to place events in multiple temporal frameworks. It does not ask the viewer to puzzle together events where the order is unknown, but assuming an order does actually exist. Instead, Nolan showcases indeterminacy to reveal that order itself does not exist. *Interstellar* contains a storyworld where causality is not chronological and time is not a definite structure.

4.3 Memento

Memento can attribute its creation to two things: the success of *Following* and Nolan's brother (Jonathan Nolan) creating the story and presenting it to him during their long trip from Chicago to Los Angeles[159]. Due to Nolan's fixation on time, he immediately began obsessing over the concept, which led him to finish writing *Memento's* script before screening *Following* at the 1996 Cambridge Film Festival (Mooney, 2018:13). *Following's* success at the film festival, translated into Nolan being identified as an up-and-coming director to keep eyes on. Luckily, he already had a script, itching to be filmed. *Memento* marked Nolan's major jump from being an independent to a major Hollywood director. Indeed, *Memento* was still considered a somewhat low-budget film, and some claim Nolan's Batman trilogy to be what propelled Nolan into stardom. However, according to Nolan

> People will often ask me about taking on *Batman* or whatever, but the truth is that the biggest leap I have ever made in my career was from *Following* to *Memento*. It was from working with friends, spending my

[159] Ironically, neither of the brothers can remember on which day they discussed the idea (Mooney, 2018:10).

own money, and then risking our time and effort to spend millions of dollars of somebody else's money […]" (Mooney, 2018:13).

Not only was *Memento* a paradigm shift in Nolan's career, but it also solidified his image in public as a director whose films contain unique narratives with epistemological and ontological concerns, and which deform time to create a puzzle for the audience to solve. Shone (2020:74) describes Nolan's films as "representing more than just the tinkering of a watchmaker, his films have an unerring grasp of the way time *feels* – its surges and slippages, constrictions and convergences. Time is Nolan's great antagonist, his lifelong nemesis. He seems to almost take it personally." *Memento* embodies Nolan's ability to court the viewer into experiencing time's deformation in a manner as close as possible to how the characters themselves experience it, to try and solve what seems unsolvable, and to ask difficult philosophical questions.

As will be seen, *Memento* contains a protagonist (Leonard Shelby) who has lost the ability to create short-term memories – remembering everything up until his wife's rape and murder. During the invasion of his house, Leonard (Guy Pearce) was struck from behind, causing severe head trauma. Set on revenge, Leonard seeks to find and kill the man who uprooted his life. As to be expected, being unable to remember anything you have recently done or want to do, creates several challenges for Leonard. However, typical of Nolan, presenting the narrative and the challenges Leornard faces in a traditional order is insufficient. As mentioned throughout this study, Nolan is a master of immersing the audience in the film, letting them become part of the experience. Therefore, Nolan takes on the challenge of altering the chronological order to such an extent that the viewers feel as if they suffer from the same condition as the protagonist: where are we, what has happened and what is happening? It will be seen that the narrative constantly makes use of analepsis and prolepsis, and to such an extent that the viewers find themselves in a permanent state of puzzlement – as if they are the ones with memory loss. Therefore, *Memento* opens itself to be a perfect candidate for a film characterised by polychronic narration. Following the same pattern as before, a synopsis of the film will be presented, followed by a detailed examination of the narrative's use of temporal deformation.

Film synopsis

Memento revolves around Leonard Shelby's (Guy Pearce) mission to avenge his wife, Catherine Shelby (Jorja Fox), who was raped and murdered by two intruders over a year before the main events of the film. This unfortunate event took place during an invasion of Leonard's home. During this invasion, Leonard attempts to stop the intruders but is unsuccessful, only succeeding in killing one, while the other strikes Leonard from behind, rendering him unconscious.

The film commences in *media res* over a year after Leonard's attack. Leonard is seen waking up in a motel room, clearly disorientated. Through a voice-over, the viewer hears Leonard trying to orient himself: where

is he, and what is he doing? The viewer quickly learns that Leonard suffers from a unique case of amnesia, specifically, anterograde amnesia, which Cunic (2023) defines as a "form of memory loss in which a person cannot create new memories after an amnesia-inducing event." While the voice-over explains Leonard's condition and how he has adapted his life, Leonard searches the motel room for any notes he may have written. He finds a note with the word "shave" written on it. Leonard follows this clue to the bathroom, where he finds shaving cream and a razor. A voice-over also mentions that important information is tattooed on his body, a kind of "permanent note" (Nolan, 2000).

Leonard begins to shave his thigh (the next location for his tattoo), before the phone rings. The person on the other end of the line claims to have talked with Leonard, but Leonard obviously does not remember. Leonard is reminded by the person that they were previously talking about Sammy Jankis, a story he tells people about to help them understand his condition. While on the phone, Leonard takes off his shirt, revealing several tattoos; the most dominant tattoo is written largely across his chest: "John G. raped and murdered my wife" (Nolan, 2000). Lenoard claims that Sammy suffered from the same condition he has. However, Sammy was not as organised and disciplined, nor did he have a drive (reason) to adapt and overcome his condition, unlike Leonard.

Leonard commences to narrate Sammy's story from the beginning. Leonard states that before the accident, he was an insurance investigator; Sammy Jankis was his first big investigation case. Due to a car accident, Sammy was diagnosed with anterograde amnesia. Thus, he could only remember something for a few minutes before his memory would reset. However, similar to Leonard, he could remember anything before the accident. Therefore, Sammy still knows how to inject insulin for his wife's diabetes. Leonard decided to run more tests as he believed Sammy should still be able to learn through conditioning (habit and repetition)[160]. One of these involved Sammy picking up small metal objects, one of which was electrified. If Sammy picked up the electrified object, he would get a small shock. This test was conducted several times over a series of months, and each time the same object was electrified. This served to show that Sammy could learn not to pick up the electrified object through instinct, not memory. Unfortunately, despite previous patients learning through instinct, Sammy constantly failed the test. This led Leonard to believe that Sammy's condition was psychological, not physical, thus rejecting his insurance claim on the basis that Sammy was not covered for mental illness.

After Sammy's insurance claim was rejected, his wife became desperate to try to help her husband, but to no avail. She also tested her husband's memory loss in various ways; Leonard had planted the seed of doubt. She eventually returned to Leonard's office to ask if he really thought it possible for Sammy to learn new memories, to which he replied, "I believe that Sammy should be physically capable of making new memories" (Nolan, 2000). Thus, Sammy's wife decided to conduct one last test to see if her husband was really faking/imagining his condition. She knew that despite everything, her husband loved her very much

[160] Leonard claims he can accomplish his goals by living his life through habit and discipline.

and knew he would never harm her. Therefore, when it was time for her insulin injection, she asked Sammy to inject her. When he was finished and sat back down, she asked again. Without hesitation, Sammy got back up, retrieved the insulin and injected her again. In absolute shock, whether it was because she could not believe that Sammy would truly harm her or because she could no longer live with his condition, she asked one final time. After the third injection, she went into a coma, and Sammy was administered to a mental institution, having no recollection that he killed his wife.

After concluding Sammy's story, Leonard discovers one of the new tattoos that reads "Never answer the phone" and hangs up. He refuses to answer the phone afterwards. After some time, a suspicious envelope containing an old photo of him is slid under his door. In the photo, he is bloodied and pointing to his right chest (the only place on his body that is not tattooed). A note in the envelope reads, "Take my call" (Nolan, 2000). A moment later, the phone rings and the person on the other side states that he is a police officer who wants to help Leonard find John G. The officer identifies John G. as Jimmy Grant (Larry Holden) – although his chest reads John G., another tattoo states that the person could be John or Jimmy – who deals drugs outside of his girlfriend's bar. The officer also informs Leonard that Jimmy will soon be arriving at his business spot (an abandoned building). Leonard packs his things and meets the officer in the lobby, ready to kill the man he has been searching for[161].

The officer confirms that he is Officer John Gammell but prefers to be called Teddy (Joe Pantoliano). Leonard is told where to go and proceeds to climb into his own truck. Upon arriving at the abandoned building, Leonard hides, waiting to surprise Jimmy. Directly after Leonard, Jimmy arrives and enters the building; he asks where Teddy is. Upon confronting Jimmy, it is clear that Jimmy knows Leonard as he calls him "memory man" (Nolan, 2000). This puts Leonard in a state of anger as he fully believes that Jimmy is the man he has been looking for. Leonard strangles Jimmy and drags the body to the basement. While doing so, Jimmy appears to be still alive as he whispers, "Sammy", causing Leonard to drop Jimmy out of shock, knocking Jimmy's head against the floor. Leonard believes that he has been set up and hears a car outside the building; it's Teddy. Leonard frantically searches the pocket in which he usually keeps his notes and finds Teddy's picture.[162]

Pretending that he has never seen Teddy, he runs out and calls for help. Teddy also pretends that he has never seen Leonard, which makes Leonard suspicious, seeing as he has a photo of Teddy. Once Teddy kneels down in front of Jimmy (now deceased), Leonard strikes him with a video camera and commences to interrogate him. It is revealed that Teddy was the original police officer assigned to Leonard's case and even helped him find and kill John G. a year ago[163]. However, Leonard never remembered and continued believing he still needed to find his wife's killer. Teddy claims that out of sympathy, he has been helping

---

[161] It will be seen later that Jimmy fits all the descriptions of the intruder (although these descriptions are very vague), therefore Leonard is ready to trust the officer.
[162] To combat his memory loss, Leonard takes pictures of people and writes notes on the back to help orient himself.
[163] The photo of Leonard covered in blood and pointing to his right chest was taken after he had killed John. G.

Leonard find his ‘John G.’ repeatedly. Jimmy was simply the next John G. whom Teddy scammed into bringing $200,000 along for a drug deal. This seems to have been a pattern through the years: Teddy helps Leonard find a John G. but makes money in the process. Moreover, Teddy reveals that Sammy’s story is partially made up. Teddy claims that Sammy was a fraud because he faked his condition and that he never had a wife. It was Leonard's wife who had diabetes and survived the attack. However, she could not cope with Leonard's condition and asked for him to inject her with insulin repeatedly. Sammy’s story was Leonard’s way of conditioning himself to cope with the guilt and grief. Moreover, Teddy accuses Leonard of sabotaging the police reports he had[164]. This created an unsolvable puzzle for Leonard, allowing him to continue having a reason to live.

As can be imagined, this information greatly upsets Leonard, who cannot believe it. In contrast, Teddy is fairly calm, even telling Leonard they need to hurry up so that they can go to the bar. Leonard, knowing that he does not have much time left before his memory resets, devises a plan to get revenge on Teddy. Leonard distracts Teddy by throwing Teddy’s car keys in the bush. He walks to his car, takes out a pen and paper and writes down Teddy’s numberplate with the heading “Tattoo fact” (Nolan, 200). In doing so, Leonard will later believe that Teddy is John G. – this will work, considering Teddy’s real name is John Edward Gammel (John G.). He also writes on the back of Teddy’s photo, “Do not believe his lies” (Nolan, 2000).

Leonard quickly takes a photo of Jimmy’s car, climbs in and drives away. While driving, his memory resets, but he is holding the note he made and suddenly stops at a tattoo parlour where he gets Teddy’s number plate tattooed. While getting tattooed, Teddy enters the shop and pretends to be Leonard's friend (a persona he takes on throughout the movie). Teddy informs Leonard that a police officer is after him and that he needs to leave town. Leonard goes to the back of the shop and reads the note he made on Teddy’s photo. He climbs through a window and drives off. While driving, he finds a coaster from a bar with a note on the back: “Come by after, Natalie”[165] (Nolan, 2000). Upon arriving at the bar, Natalie (Carrie-Ann Moss) mistakes Leonard for Jimmy because Leonard is driving Jimmy’s car and wearing Jimmy’s suit. When Leonard enters the bar, Natalie questions Leonard, asking him why he is at the bar. Leonard truthfully tells her that he does not know and informs her about his condition. This rings a bell, and she tells Leonard that her boyfriend (Jimmy) has told her about him. She informs Leonard that a police officer came by looking for him (probably Teddy). After she tests Leonard's condition – she spits in a beer in front of Leonard, then later hands him the same beer, which he drinks – she invites him back to her home.

After the two arrive at Natalie’s house, she asks Leonard about his hunt, spotting Leonard’s vulnerability to manipulation. Afterwards, she states that she has to go to work and leaves the house. A few moments later, she returns in a frantic state, claiming that somebody is after her. She states that Dodd (Callum Keith

[164] Leonard possessed a large file with all the information he had collected. In it were the police files which had pages missing and sentences blacked out.

[165] These were Jimmy’s coaters left behind in his car, which Leonard is currently driving. Leonard also switched his clothes with Jimmy’s after he killed him.

Rennie), one of Jimmy's associates, is after her because they think she killed Jimmy and took all his money. In a bizarre twist of events, Natalie begins insulting Leonard and his deceased wife; she even claims that she is going to manipulate him. She angers Leonard to such an extent that he strikes her. She leaves smiling and waits in her car. Leonard frantically tries to find a pen to make a note of Natalie's intent, but she has hidden all the pens. After a minute or two, she returns and blames Dodd for her injuries. Natalie masterfully manipulates Leonard into seeking out Dodd.

After leaving Natalie's house, an unknown car drives Leonard off the road. A man exits the car with a gun and threatens Leonard, but Leonard is able to escape, resulting in a chase. Leonard makes it back to his car and drives off. Trying to make sense of what just occurred, Leonard rummages through his notes and finds the instructions left by Natali. On this note is Dodd's address, which Leonard heads for and hides in the bathroom. Dodd eventually returns home, and Leonard knocks him, locks him in the closet, and takes his picture. Out of exhaustion, Leonard falls asleep. When Leonard wakes up, he is frightened to find Dodd. He again rummages through his notes, finding Natalie's note and Teddy's picture (with Teddy's phone number written on it). Leonard calls Teddy for help, and the two come up with a plan to threaten Dodd out of town.

Still confused by why he had attacked Dodd, Leonard returns to Natalie's house. During a heated debate, Natalie is able to avoid Leonard's accusations about her using him and even offers her help. According to Natalie, she can ask a friend to trace the number plate (Teddy's) tattooed on Leonard's body. The next morning, Natalie informs Leonard that she will ask her friend to trace the number plate and writes down a note for him to meet her later at a café. After a few confusing detours, Leonard finds the note and drives off to meet Natalie.

At the café, Natalie hands Leonard a folder detailing the owner of the number plate. Of course, the documents in the folder contain all of Teddy's information, specifically his full name. After receiving the documents, Leonard returns to the inn where he is staying and begins to compare all the evidence he has uncovered thus far. He takes Teddy's information and goes through the facts he has written on his tattoo: Fact 1, male. (2) White. (3) First name is John or James. (4) Last name starts with a G. (5) Drug dealer. (6) The car license number is SG1371U. After comparing these facts to Teddy's information, Leonard concludes that Teddy is John G. and arranges to meet with Teddy. Leonard writes on Teddy's photo, "He is the one, kill him" (Nolan, 2000). Leonard meets Teddy at the front desk of the Inn and then drives him to the abandoned building.

Once they arrive at the abandoned building and enter it, Leonard takes no time to attack Teddy. With a gun to Teddy's head, Leonard asks Teddy to beg for forgiveness. Teddy begins to plead with Leonard, arguing that Leonard does not know what he is doing or who he is, who he has become. Teddy tells Leonard to go down to the basement (where Jimmy's corpse is) and find out who he truly is. However, Teddy quickly tries to escape but is shot in the head. Leonard takes out his camera and takes a photo.

The Analysis of Polychronic Narration in Memento

Although the above synopsis provides a logical summary of the events, it does not do justice to just how radically these events are portrayed in the film, nor does it showcase the severity of Leonard's condition. As mentioned before, Nolan aspires to immerse his viewers as much as possible in the narrative. To achieve this level of immersion, Nolan structures the film to mimic how Leonard experiences the world: the audience perceives the events in a similar fashion to how Leonard would; fractured and deformed. The audience and Leonard simultaneously engage in constructing what seems to be an unsolvable puzzle.

The difference between the puzzle Nolan has created for the viewers in *Memento,* as opposed to the other films in this chapter, is that Nolan alters time specifically for the viewer to experience the perspective of the character, thus gaining a much stronger sympathetic connection to Leonard than what would have been achieved if the narrative followed a chronological order. In *Dunkirk,* Nolan creates an intricate puzzle between three perspectives to emphasise the miraculous efforts of multiple people in evacuating the soldiers. *Interstellar* immerses the reader in a world where the traditional notion of time is challenged and in which love is a powerful emotion that transcends dimensions. However, *Memento* questions the viewer's understanding of memory and the constant need for meaning. The most effective way to experience these themes is to experience them with the character; to undergo the same emotions, ask the same questions, and feel the absence of time.

To achieve this, Nolan constantly utilises analepsis and prolepsis. Moreover, he exploits these two temporal 'shifts' to such an extent that certain events evade the viewer's efforts to order them chronologically. As discussed, this is precisely what Nolan wishes to achieve: to create a fractured experience for the audience, pointing to polychronic narration in *Memento*. However, the experience of the viewer does not define a narrative as polychronic. It is only through a thorough investigation, and where events are proven to be indeterminate, that it can be definitely stated that the narrative is polychronic. The first step to achieve this is identifying if *Memento* is inexactly coded or coded inherently inexact.

It seems reasonably clear that *Memento* is inexactly coded. This is because, unlike *Interstellar*, the deformation of time is not a result of the narrative's *story* being radical. Rather, it is due to the narrative's *discourse* that events within the storyworld are presented as fractured. As seen in *Dunkirk*, time in the storyworld follows a logical chronological (cause and effect) structure. In *Dunkirk*, the reason why the narrative deforms time, creating indeterminate events, is because Nolan made a stylistic choice to *arrange* the story in an anti-chronological manner. *Memento* shares a similar reason for being ordered inexactly. The storyworld that Leonard occupies follows the traditional movement of time (A, B, C, D) where characters (apart from Leonard) experience events in a logical cause-and-effect fashion; they do not experience time as fractured. Leonard, on the other hand, does not conform to the traditional experience of time.

Due to Leonard's condition, his perception of time is warped; to be exact, Leonard has no perception of the movement of time. His anterograde amnesia does not allow for new memories to be formed, restricting Leonard's memory to all events leading up to his accident – for Leonard, every day is the day after his wife was murdered. This creates a very complex experience of time because it cannot, of course, be argued that for Leonard, cause and effect are jumbled, so as to where he experiences Events as (D, B, C, A). Instead, after a few minutes, the events no longer exist, placing Leonard in a constant state of uncertainty. This concept of time's 'nullification' and the constant questioning of where you are, what you are doing, what you were doing, and who is around you is precisely what Nolan wants the audience to experience. Thus, Nolan structures the narrative in such a way that you are seeing the world through Leonard's eyes, experiencing the same state of confusion, and asking the same questions. Taking into consideration what has been argued thus far, it is evident why *Memento* is inexactly ordered: time is deformed because the viewer experiences the narrative through Leonard's eyes. Time's (objective) existence within the storyworld is not the cause of events being ordered in a fractured and non-linear way.

Having established how *Memento* is coded, we can now analyse its order (partial or multiple). In section 3.3.1.2, Herman does not make it clear whether a narrative can be coded partially and ordered multiply. However, this was proven to be possible during the investigation of *Dunkirk* in section 4.1. Therefore, the possibility of *Memento* being multiply ordered is valid. However, *Memento's* portrayal of events and Leonard's unique perspective differ greatly from *Dunkirk's* temporal structure. Hence, a proper investigation needs to be conducted. This will follow the same pattern as seen in section 4.1, with Figure 9 representing the attempted reconstruction of *Memento's* storyworld timeline and Figure 10 representing how the events are shown to the viewer. The bracketed events in Figure 9 represent moments in the narrative where sequencing is unclear (indefinite).

Figure 9: *Memento's* Reconstructed Timeline

-[1-2-3-4-5-6-7-8]-[9-10-11-12-13-14-15-16-17-18]-19-20-21-22-23-24-25-26-27-28-29-30-31-32-33-34-35-36-37-38-39-40-41-42-43-44-45-46-47-48-49-50-51-52-53-54-55-56-57-58-59-60-61-62-63-64-65-66

Figure 10: Order of Events Presented to The Viewer

66, 22, 63, 64, 65, 22, 62, 63, 22, 23, 61, 62, 23, 61, 2, 61, 1, 6, 61, 1, 3, 4, 3, 61, 2, 6, 5, 61, 24, 9, 24, 59, 60, 61, 24, 10, 11, 12, 24 58, 59, 24, 14, 24, 56, 57, 24, 14, 24, 55, 60, 25, 15, 25, 54, 25, 53, 25, 53, 52, 7, 52, 53, 26, 51, 26, 50, 51, 52, 27, 16, 27, 49, 28, 48, 49, 29, 47, 48, 29, 46, 19, 20, 46, 47, 30, 45, 31, 44, 45, 31, 16, 17, 31, 18, 31, 42, 43, 44, 31, 32, 33, 34, 2, 35, 36, 37, 38, 39, 40, 41, 42

As seen in the other films, Figure 10 clearly represents how disjointed the viewer's experience of *Memento's* events is. By jumbling up the structure of the narrative to such an extent, a complicated puzzle is created to solve. Therefore, in certain cases, the viewer is forced to engage in a preference-based ordering

system, as also seen in *Dunkirk* and *Interstellar*. This shows that indeterminacy is present in the film, as the viewer has the option of ordering certain events based on their preferences (what makes logical sense for them). True, both partially and multiply ordered narratives force their viewers to engage in this practice. However, as seen with *Dunkirk* and *Interstellar*, the extent to which this practice is forced on the viewer greatly impacts whether the narrative is partially or multiply ordered. In *Dunkirk*, indeterminacy was radical to such an extent that the narrative as a whole offered multiple and alternative ways of sequencing i.e. not only the sequencing of a cluster of events that do not have a fundamental role in how the narrative is constructed. Likewise, *Interstellar* was defined as multiply ordered because the narrative's events utilised indeterminacy to allow certain events to occupy multiple temporal frameworks. For *Memento* to fall within this category, the extent to which inexactness is prevalent in the film has to be examined. As seen in the other films, this will be accomplished by analysing the moments of indeterminacy, namely brackets one and two in *Memento's* timeline.

There is a stark difference if we compare the attempted reconstruction of *Dunkirk's* and *Interstellar's* timelines (both multiply ordered) with *Memento's*: *Memento's* is clearly far more simplistic. Although *Memento* is an arduous film to comprehend while watching[166], showing intricate use of deformed temporality, once solved (as far as possible), its indeterminacy is unadorned compared to the previous films. Its structure is closer to *The Sweet Hereafter* in section 3.3.1.2, which Herman identified as partially ordered. This leads our investigation to preliminarily classifying *Memento* as partially ordered. However, the same assumption was made when *Dunkirk's* analysis was conducted. Hence, a conclusion can only be made after a more thorough investigation.

Bracket one contains eight Events (**1-8**). These events depict various memories Leonard has of his wife: Event **1** (Leonard's wife, Catherine, is washing dishes), Event **2** (Catherine wonders around the house), Event **3** (Catherine is sitting down toying with an object), Event **4** (Cathrine stairs out the window), Event **5** (Cathrine lays in her bed), Event **6** (Leonard pinches Catherine's thigh), Event **7** (Catherine reads her favourite book for the umpteenth time, which Leonard mocks), and Event **8** (Cathrine is sitting outside, possibly on the roof). It is clear from the descriptions of these events that there is no clear order; they seem almost random. They are individual events separated by time and space, as Catherine is seen at different times of the day and wearing different clothes. Thus, they can be considered as separate. Moreover, it is clear that these events are before Event **19** as, at this point in time, Catherine is deceased.

As stated, these events are the memories of Catherine that Leonard clings to. In fact, most of them appear in the film when Leonard is asked to try to remember his wife in detail, not only the same description he repeats when asked about his wife. These events contain no visual or auditory information that would allow them to be sequenced chronologically vis-a-vis one another. Therefore, their sequencing within bracket one is purely based on the viewer's preference. Unlike the brackets in *Dunkirk* and *Interstellar,* there are, for example, no

---

[166] Hence why, it has been chosen to be analysed third.

events that must follow one another but which can be ordered differently in relation to the other events within the bracket: in *Dunkirk's* first bracket, Event **11** will always follow **10**; however, its relation to **12** and **13** is indeterminate. Events **1-8** in *Memento* can be sequenced in any order without one or more events needing to be chronological to another event within the bracket. Therefore, there are several sequences that can be found in bracket one: **3**,**4**,**8**,**1**,**6**,**2**,**7**,**5** or **8**,**1**,**4**,**6**,**5**,**7**,**2**,**3** or **5**,**2**,**4**,**1**,**6**,**8**,**3**,**7**, etc.

It is clear, then, that bracket one's events are random and contain no chronological order; their order can only be definitely argued as (collectively) occurring before Event **19**. It is also clear that their sequence is restricted to bracket one, thus defining their indeterminacy as indefinite. Moreover, although these events are vital to Leonard's character, they do not play an important role in the narrative's structure as a whole – they could be ejected with no repercussions to the narrative's structure, comprehension or outcome. Although this is true, stating it in this manner creates a sense that these events are of very little importance and can be treated as existing outside the narrative's timeline, thus suggesting they are better defined as belonging to the atemporal (Genette's definition of indeterminate events). However, returning to section 3.3.1.2, Herman explicitly states that ignoring these events is an injustice to their role within the narrative. Events **1-8** are not atemporal because their indefiniteness is a part of the narrative's polychronic narration, where inexactness is exploited for a specific purpose. These memories are random because they symbolise the memories the average person takes for granted. Leonard does not remember grand events that one believes are the most important, but the simple, everyday moments that a person will feel the absence of most. Moreover, these memories depict Leonard's wife in a naturalistic atmosphere, as if he remembers her in her purest, most intimate form. Indeed, these events, while not vital to the structure of the narrative, are important to other elements within the film: theme, character, atmosphere, etc. They are an important part of the film's polychronic narration.

What is also interesting about the events depicting Catherine is that they are in colour, not black and white. In the film, Nolan has decided to depict moments in Leonard's past (such as the events involving Sammy) in black and white and present events in colour. Why, then, is the depiction of his wife in colour? Leonard claims multiple times in the film that he remembers everything up until the assault. In addition, when the man at the inn's front desk asks Leonard what it is like living with his condition, Leonard responds, "It's like waking up" (Nolan, 2000). It could be argued that Catherine is depicted in colour because, for Leonard, her death is always recent – almost as if it had occurred the previous day. I believe it is more symbolic of Leonard's inability to move on, to forget about his wife. At Event **52,** Leonard takes the remainder of his wife's possessions[167] (her brush, book and clock) and burns them. While looking at the flames, he says to himself, "Probably burned truckloads of your stuff. Can't seem to forget you" (Nolan, 2000)

[167] These possessions seem to have always been on her nightstand; they were the first things Leonard saw when he woke up in the mornings and looked at her side of the bed (besides her, of course).

Although Event **52** is very short, I believe it is very impactful. It is later revealed that Leonard has already killed John G. and that his repeated hunt is a means for him to continue having meaning in his life, a drive[168]. Could this small event be Leonard subconsciously admitting that he does not want to stop hunting his wife's killer, to let go and move on? With this in mind, Catherine's being depicted in colour symbolises Leonard's obsession. For him, Catherine is his present, his reason for existing. If he acknowledges her as part of his past, then his present is empty, void of any meaning.

Bracket two offers a rather unique conundrum: its existence is uncertain. The events within this bracket involve Leonard's story of Sammy Jankis, described in detail in the film's synopsis. At the film's end, Teddy accuses Leonard of fabricating the story to cope with his guilt; only a part of the story is true. Leonard did investigate a man named Sammy Jankis, who claimed he had anterograde amnesia. However, Teddy claims that Sammy was faking his condition and that Sammy never had a wife. Moreover, he reveals that Leonard's wife survived the assault and she had disabilities, not Sammy's wife. It was Leonard's job to inject her with insulin. After being unable to cope with Leonard, Catherine was the one who asked for three consecutive shots of insulin, placing her into a coma.

Teddy's claims are shocking, but more problematic is whether events in bracket two on the narrative timeline are valid. If Teddy is telling the truth, then these events never occurred in the storyworld; therefore, they cannot be included in the timeline. If they exist, it would be accurate to include them in bracket one. This is because it can be argued that the Events depicting Cathrine (**1-8**) could have occurred in between the Events involving Sammy (**9-18**), essentially making it so that the narrative only contains one indefinite bracket. Sammy's events are chronological; however, because of the randomness of Cathrine's events, they could theoretically be arranged in several ways in relation to Sammy's events.

I have chosen to keep the two brackets separate because of the ambiguous ontological status of Sammy's events. The film does not make it clear that he is telling the truth; in fact, I believe it purposefully blurs this distinction by providing evidence for each case. When Leonard is flipping through the police files and his gathered evidence at Event **25**, the top of a psychiatric report can be seen (only for a few seconds). There is no information about who the report belongs to or what it contains. This brings up the question of whether the report is Leonard's. Furthermore, when Leonard tells of Sammy being placed in a mental institution (Event **18**), Sammy is seen sitting in a chair, watching people walk by. At the very last second, a doctor walks in front of Sammy. Once the doctor moves out of the way, for a split second, Leonard is seen sitting in the chair, not Sammy. The psychiatric report and the implicit argument that Leonard is Sammy at Event **18**, strengthens the idea that Teddy is telling the truth.

[168] In the film's synopsis, Leonard claims that Sammy could not live his life because he had no drive and no reason to overcome his condition. If Leonard is Sammy, is Leonard saying that if he does not have meaning (finding his wife's killer), then he has no reason to live and no means to overcome his condition?

On the other hand, throughout the film, Leonard reads the note “Do not trust his lies” on the back of Teddy’s photo (Nolan, 2000). Considering the fact that the audience essentially experiences the narrative through Leonard’s perspective – sharing the same confusion and questions – Leonard's warning to himself may also be the film's way of warning the viewers not to trust Teddy’s lies. Furthermore, it becomes apparent that Teddy is using Leonard as a sort of hitman, targeting people who fit John G.’s description. In doing so, he walks off with a financial reward while Leonard carries on living his revengeful life. It is evident that Teddy manipulates Leonard in various ways for his own gain. During Event **30**, an old photo of Leonard depicting his original killing of John G. is slipped under his door by Teddy. It can, therefore, be assumed that Teddy keeps this photo away from Leonard to prevent Leonard from remembering his already accomplished goal and as a manipulative technique whenever Leonard deviates from his set course. Considering this, it can be assumed that Teddy will say or do anything to manipulate Leonard, making his claims untrustworthy.

As can be seen, both arguments for whether Teddy is lying are valid, hence my decision to isolate the events involving Sammy. If we are to consider them true, then Events **1-8** can be sequenced in alternative ways in relation to the second bracket. If not, then bracket two could be extracted from the timeline with Event **19** following Event **8**.

However, whether Teddy is telling the truth or not, these events are not fundamental to the narrative's structure. True, they greatly affect Leonard’s character; however, their existence does not alter the narrative’s timeline in such a way that multiple and alternate ways of sequencing are entertained – they do not affect how the viewers understand nor bring into question the relationship between certain events (did this occur before this? Is this the true cause of this effect?). The same can be said for bracket one. These events have an important role in the narrative; however, they do not affect the narrative's fundamental chronological structure: *Memento* would be completely linear if they were excluded. This is slightly different from Herman’s analysis of *The Sweet Hereafter,* where certain indefinite events cannot be excluded from the film. However, their order in relation to other indefinite events does not affect how “the” narrative is structured as a whole. Understanding this, it is clear that, like *The Sweet Hereafter*, *Memento* fits perfectly into Herman’s classification of partially ordered polychronic narratives:

> [Partially ordered narratives] make it possible to reconstruct a global sequence or overall temporal interval yet mitigate against interpreters’ efforts to establish temporal positions for particular events within that larger span of time. (Herman, 2004:213-214)
>
> […]
>
> Functionally speaking, refusing to assign situations and events a definite location in time can, in some cases, highlight the difficulty of narrativizing traumatic occurrences. In broad terms, this is the function of temporal indeterminacy […] using cues specific to written and to cinematic narrative, suggest ways in which traumatic occurrences resist being presented in narrative form. (Herman, 2004:220)

Memento falls neatly into the first paragraph of the above quote. As shown above, *Memento's* global timeline is almost fully reconstructed chronologically (albeit with some effect), with only a few events mitigating definite temporal placement. When focusing on tragedy within the film, Herman argued that in *The Sweet Hereafter*, indefiniteness was used to highlight that such traumatic events (most of the town's children drowning) resist being neatly ordered into cause and effect. Likewise, Leonard's story is tragic in its own right: his wife was raped and assaulted, and his memory was lost; likewise, his constant, repeating hunt for meaning in his life while also being manipulated.

From the above information, it can be confidently argued that Nolan's *Memento* is an inexactly coded, partially ordered polychronic narrative. Time is deformed because the film takes on the perspective of Leonard, and it is partially ordered due to the indefinite events taking place in brackets one and two. These events have no fundamental effect on "the" narrative's temporal structure; they instead serve to emphasise tragedy's resistance to logical chronology. The polychronic narration immerses the reader into the narrative, making the viewer see the storyworld through Leonard's perspective. This accomplishes a more sympathetic connection between the viewer and Leonard and emphasises the narrative's themes and messages. As seen in *The Sweet Hereafter,* tragedy and trauma are fundamentally complex phenomena. Leonard's trauma does not allow for chronological time to exist, and Leonard cannot conceptualise the cause and effect of his wife's tragic rape, assault, and eventual suicide (if Teddy is telling the truth). The film also highlights the fragility of human memory and its almost untrustworthy nature.

Moreover, the narrative directly addresses the concept of meaning in one's life. To find meaning, we all have our John G., something we obsess over: if we can achieve it, then we have accomplished something and found meaning. At Event **59**, Leonard tells Teddy that John G. took away his ability to live. Teddy responds by feeling Leonard's pulse and saying, "You're living," to which Leonard replies, "Only for revenge" (Nolan, 2000). Leonard believes he has only one meaning, which he obsessively pursues, leading to his downfall. The film emphasises that meaning is not isolated to one thing that must be chased obsessively; therefore, existing only in the future. Rather, one should find meaning around you and live in the present before time slips away and memory becomes polychronic.

4.4 Tenet

The films discussed in the above sub-sections showcase the range of complexity Nolan has embedded within them. These films have also highlighted that Nolan does not deform time in a singular way throughout his films: each film has uniquely altered time, emphasising its core themes and messages. It has also been demonstrated that Nolan's rearrangement of time is not limited to the scrambling of past, present and future events (simply rearranging linear events to such an extent that they become indeterminate). Instead, he has shown that he possesses a fundamental curiosity about how time exists and our understanding of it. This is seen in *Interstellar*, where Nolan engages with Einstein's theory of relativity – an immensely complex theory

– and presents it to the audience in the form of a narrative (a medium through which they are able to take an interest in the theory and have a better understanding, albeit intuitive, of it). In doing so, the audience does not perceive a film where discourse is used to shuffle events; rather, Nolan tackles time head-on to question the very nature of its existence.

Watching Nolan's films reveals that he is a puzzle master with an obsession with time. Although all his movies could not be discussed in this dissertation, it has nonetheless been shown that Nolan's personal curiosity about time developed during his career, from altering time to reveal themes of identity, memory, grief, and miracles; to battling time's existence in the universe. Hence, the last film to be discussed is Nolan's next step in his battle with time: *Tenet* (2020).

If we are to argue that Nolan's legacy as an auteur is his constant engagement with and deformation of time, then it is fair to consider *Tenet* as his magnum opus, thus far. This is certainly up for debate, especially considering that *Tenet* is Nolan's worst-performing film. According to IMDb[169] (2024), *Tenet* "remains the lowest-rating movie of his [Nolan's] career." Despite this, the film is still widely admired by Nolan's fans and has come to be regarded as one of his most underrated films, with many defending it on social media. One of the main arguments for *Tenet's* poor performance is that it was too chaotic and complex for people to understand. Therefore, many people have gone out of their way on social media and YouTube to explain *Tenet*: OneTake (2022); Heavy Spoilers (2023); Carman (2024).

It is certainly understandable that many found *Tenet* unenjoyable due to the sheer amount of concentration it takes to understand and follow the narrative, with many claiming that the film needs multiple viewings to fully grasp what is going on. Despite this, it seems that the more *Tenet* ages, the more it is regarded as one of Nolan's masterpieces; perhaps this is due to the growing understanding of the film's structure and underlying temporal theory.

Nonetheless, whether you believe that *Tenet* is good or bad, it cannot be questioned that it is Nolan's most temporally complicated film. As will be seen, Nolan again brings into question whether cause truly comes before effect. However, in *Tenet,* this is more prevalent than in *Interstellar,* as the film deals directly with time travel, specifically the inversion of someone or something's entropy. Although it has been seen that Nolan utilises the distortion of time in other films, it has not been the primary focus point of such films: in *Dunkirk* and *Memento,* time is deformed as a tool to emphasise certain fictional elements. On the contrary, time's distortion and the ability to manipulate the movement of time is at the core of *Tenet*, as if (after toying with time for years) Nolan is finally ready to confront time directly.

[169] IMDb stands for *Internet Movie Database* and is considered "the largest, most comprehensive movie database on the [internet]" (Fisher, 2022).

As briefly mentioned, time's existence within *Tenet* centres around the concept of entropy. Entropy relates to the second law of thermodynamics and is defined as "the degree of disorder or uncertainty in a closed system", "the degradation of the matter and energy in the universe to an ultimate state of inert uniformity", or "a process of degradation or running down or a trend to disorder" (Merriam-Webster Inc., 2024). Indeed, there is more to the theory of entropy; however, for the purpose of this dissertation, I will focus on its relation to the movement of time.

At first, it may seem that the above definitions are disconnected from our focus on time. However, I find the phrase "degree of disorder" rather fitting for Nolan's work. Simply put, entropy can be thought of as the degree of uniformity something has: solids are more uniform than liquids, and liquids are more uniform than gases. The more disordered something is, the higher its entropy will be. The same can be said for how we age: the younger we are, the lower our entropy is; however, the more we age (from dust to dust), the higher our entropy will become. Hence, the above definition hints at the universe's eventual trend to disorder – its destruction. This also means, theoretically (which Nolan opposes in *Tenet*) that something's entropy will always increase, never decrease; an object or person's movement through time, uniform to disorder (young to old) cannot be reversed.

By understanding the basics of the theory behind thermodynamics' second law, entropy, its relationship to temporality becomes clear: everything decays over time (its entropy constantly increases). This was first explored by physicist Sir Arthur Eddington, who referred to entropy as the "arrow of time" (Eiley, 2022). Stephen Hawking later took the notion of time as an arrow and stated that there are three arrows of time: psychological time, thermodynamic time or entropic time, and cosmological time. *Tenet* engages with entropic time.

According to entropic time, the direction of time's arrow will always move towards greater entropy and disorder, thus indicating that "no process in our universe is reversible" (Eilley, 2022). By conforming to this theory of time, time's existence is defined as chronological, always moving forward. This, of course, does not fit into Nolan's general perception of time. By claiming that everything moves forward in entropic time, therefore being irreversible, time is limited in a linear fashion. Eilley describes this well by stating that

> We experience time as fixed. If you drop a glass and it shatters you cannot magically reverse time and piece the glass back together. If you have ice cubes and warm water, there will eventually be room-temperature water. Entropy can be seen in how things, such as energy and matter, have a tendency to disperse and grow towards randomness. (Eilley, 2022)

Nolan pushes back against this theory by challenging the key argument that something's entropy is irreversible: what if the shattered glass, whose entropy has increased, can be made whole again by decreasing/reversing its entropy? This thought is precisely what is at the core of *Tenet*'s storyworld. Within

Tenet's storyworld, a device is created that allows something or someone to reverse their entropy; this process is referred to as temporal inversion – essentially moving backwards through time to the past. What makes *Tenet's* deformation of time unique is that an 'inversed' person or object does not travel through time to a point in the past. Rather, an inversed person moves backwards in time from the point of inversion. While doing so, only that person is inversed; the past that he or she occupied still moves in a forward direction. Because of this phenomenon, the inversed person sees the world in reverse and experiences the world around them in a reverse direction: while running, they feel the wind at their back, they will see other people walk backwards, and cars drive in reverse, and language will sound jumbled as anyone who is not inverted will essentially be speaking backwards. Likewise, a person who is not inverted (moving 'normally' through time) will perceive the inversed character and their actions in reverse.

There are far more complicated and related phenomena that occur; for instance, an inversed person must wear an oxygen mask as "regular air won't pass through the membranes of lungs," as well as any contact of an inversed person with their "forward" self will result in their particles annihilating[170](Nolan, 2020). However, unless they are important to our discussion, there is no need to describe every scientific phenomenon in the movie in full detail.

With the film's premise explained (Nolan uses the theory of entropy to distort and reverse time), a better understanding of the film's storyworld has hopefully been achieved. However, despite the theory of entropy and the brief explanation of its use in the film, *Tenet's* complex narrative structure has yet to be fully revealed. As will be seen, Nolan exploits the use of inversion to such an extent that it alienates the viewer, asking them to solve a temporal puzzle that seems to have no definitive pieces. Therefore, it will be beneficial to provide a detailed summary of the film before progressing to the analytical part of this section.

Film synopsis

On "the 14th"[171] an opera house in Kyiv, Ukraine, is attacked by a terrorist organisation where the Protagonist[172] (John David Washington) leads a CIA (Central Intelligence Agency) extraction to save an informant and retrieve an unknown object. The terrorists release a sleeping gas into the audience. After rescuing the informant and taking possession of a strange unknown artefact, TP is told that bombs have been placed around the audience, set to detonate in a few minutes. While desperately attempting to retrieve and deactivate the bombs, TP is held at gunpoint. However, a bullet hole next to TP reverses, causing the embedded bullet to shoot out and kill the terrorist. A man of unknown origin is seen holding a gun and quickly walking away; a red string dangles from his backpack. TP is then able to gather and dispatch all the

[170] By contact, the film seems to refer to skin-on-skin contact, as later in the film, the main character engages in combat with his past self. However, the reversed version of himself is wearing protective gear.
[171] It is not specified in which month this attack is carried out.
[172] The film does not disclose what the character's name is; he is simply referred to as "the Protagonist". The reason for doing so becomes clear later in the film. For efficiency, I will abbreviate "the Protagonist" as TP.

bombs, jumping into the same van that transported him to the opera house. Unfortunately, a group of Russian men lie waiting in the van, capturing TP.

TP, along with another man from the CIA, is held captive and tortured at an unknown train track. After a few torturous hours, TP is able to retrieve a suicide pill[173], held in the hands of his colleague, and swallows it. Luckily, the entire situation was a test to prove his loyalty. TP wakes up from a coma, and his jaw is repaired. A man informs him that the CIA was not behind the test. Instead, a more important organisation, Tenet, wished to recruit him. After a few days resting in an ocean wind turbine, TP is transported to a facility where a woman, Laura (Clémence Poésy), briefs him on the world's threat: World War 3.

Laura explains to TP that, somewhere in the future, a machine was built that changes an object's entropy, thus allowing it to move backwards through time. She demonstrates this by showing how inverted bullets shot into a wall revert back into the gun – this is what TP had experienced at the opera house. She further explains this phenomenon by placing two bullets on a table. She places her hand over one, and the bullet miraculously moves and flies up into her hand. She explains that "one of these bullets is like us, travelling forwards through time. The other one's going backwards; it's inverted. Its entropy runs backwards. So, to our eyes, its movement is reverse" (Nolan, 2020). TP asks a very important question, "How does it move before I've touched it?" to which she answers, "From your point of view, you caught it. But, from the bullet's point of view, you dropped it" (Nolan, 2020).

Although inverted bullets are a dangerous threat, TP finds it difficult to believe that they will be the cause of World War 3. Laura explains that any weapon, even nuclear, can be inverted; therefore, the future could theoretically destroy the past – it is not clear what the plans are, but war is inevitable. In an attempt to acquire more information, TP seeks to find the supplier of the inverted bullets. His search leads him to Mumbai, where he seeks to question an arms dealer by the surname of Singh.

As to be expected, obtaining a meeting with an arms dealer is not the easiest task. To aid TP in this mission, Niel (Robert Pattinson), an agent, is assigned as the Protagonist's partner. The two agents are able to conjure up a plan that gains them access to Singh's residence, who turns out to be a woman, Priya (Dimple Kapadia). She informs TP that she is a member of Tenet and that a Russian oligarch made the inverted bullets[174], Andre Sator (Kenneth Branagh), who can also communicate with the future. To gain more information on Sator, TP meets with Michael Crosby (Michael Caine), who provides important background information, such as the town Sator grew up in, Stalsk-12. This town has long since been abandoned and is currently used for underground tests. During the opera siege in Ukraine – two weeks ago, when TP performed his rescue mission and was captured – Sator was directly involved with a detonation at Stalsk-12. Michael also informs him that the best way to reach Sator is through his wife, Kat (Elizabeth Debicki), who despises her husband.

[173] A special capsule that is designed to kill a soldier upon capture.
[174] Hoffman (2024) defines Russian oligarchs as "tycoons who reaped enormous fortunes in the collapse of the Soviet Union in 1991."

TP can obtain Kat's attention through the use of a Goya [175]painting, as she is an art appraiser. The reason for this specific painting is because she previously appraised an identical version for her husband, which he bought for millions and turned out to be fake.

TP confronts Kat at her workplace, leading them to arrange a dinner to discuss how he obtained the Goya painting and what information he has on her life. At the restaurant, Kat reveals that his painting is a fake; her husband owns the real one, which Kat verified. However, TP knows that Sator's painting is fake as well and subtly blackmails Kat to arrange a meeting for him with Sator. Unfortunately for the Protagonist, Kat is not threatened as she claims that Sator knows that she validated a fake (for which he paid nine million dollars). Instead, Sator has been using the painting to control Kat, threatening to imprison her and thus separating her from her son. TP changes his strategy, offering to steal the painting in return for her arranging a meeting with Sator. Although this sounds promising, Kat does not believe it is possible and leaves after a group of Sator's men enter the restaurant. However, TP leaves his number in her coat pocket before she leaves. Before she drives away, she witnesses TP successfully dispatching Sator's men, giving her confidence in the Protagonist's plan.

TP and Neil plot out their plan to steal Sator's painting, thus gaining Kat's aid and a meeting with Sator. The painting is held at Sator's Freeport facility at Oslo Airport. After some surveillance and plotting, TP and Neil infiltrate the facility, where they encounter two masked men. After engaging in combat, the Protagonist and Neil are unable to retrieve the painting.

TP returns to Mumbai, where Priya explains that the two masked men were the same person, one moving forward and one inverted. She also reveals that 3/4kg of weapons-grade plutonium that Sator wants is in possession of Ukraine's special forces, KORD. Priya continues to explain that Sator is working for the future and that the only way to get close to Sator is to help him steal the plutonium. Believing that the painting has been destroyed, Kate arranges a meeting between TP and Sator. TP takes on the role of an arms dealer and offers a partnership. Sator possesses a facility in Tallinn (which is conveniently close to where the special forces will be when transporting the plutonium) that can house the radioactive plutonium, and TP has the resources to steal it. TP offers to steal the plutonium in exchange for a large sum of money. After a few heated exchanges, Sator agrees to help steal the plutonium in Tallinn[176]. TP demands that Kat handle the exchange as she is the only person he trusts.

TP, Neil and a handful of Tenet agents prepare to steal the plutonium in Tallinn while it is being transported. After a few clever manoeuvres, TP successfully steals the plutonium from a moving armoured vehicle. However, not soon after, TP is ambushed by an inverted Sator holding Kat hostage. TP hides the plutonium

---

[175] Francisco Goya (1746-1828) was a famous Spanish painter (National Gallery of Art, 2024).

[176] The Protagonist requires Sator's aid because the plutonium is highly volatile; therefore, it requires special handling, such as containment facilities. Due to Sator's arms dealing business, he has the resources necessary to house the plutonium. Of course, the Protagonist is unaware of Sator's true intentions.

and rescues Kat; however, Sator is one step ahead as he captures the two and interrogates them at his facility. At this facility is another inversion machine, which Sator uses to interrogate TP – he asks TP from the past where the plutonium is hidden, then returns through the past to retrieve it. Unfortunately, Kat is shot with an inverted bullet – due to Sator being inverted – wounding her severely. TP attempts to retrieve the plutonium by inverting himself, but Sator has already retrieved it. Upon returning to the facility, TP is briefed on Kats' condition. Due to the bullet being inversed, the only way possible to save her is to invert her. This would require them to travel through the past to the Oslo inversion machine, as it is the only inversion machine not occupied by Sator's men in the past. TP also learns that there never was any plutonium, he has been chasing an artefact that Sator wishes to use in destroying the world – Priya explains this further later.

Once TP, Niel and Kat, reach the airport, it is revealed that they had travelled back to the exact moment their past selves were infiltrating the airport. Therefore, we see that TP was fighting his 'future past' when they were originally attempting to steal the painting. Nonetheless, TP is able to re-invert himself and Kate, saving her life. Afterwards, TP meets with Priya again, who informs TP of the true nature of the artefact. She reveals that many generations into the future, the world will decline into an uninhabitable state, a result of humanity depleting all of its resources. As a result, a female scientist invents a method that would allow the future to invert the entire world. However, she ended up believing that in doing so, she would kill everyone belonging to the past, thus killing the future too. Although this sounds perfectly logical, there are many who believe that eliminating the past would not kill the future due to a range of causality theories[177]. The future civilisation is desperate enough to try. In an attempt to stop this, the scientist kills herself and hides her invention in the past. This invention is referred to as an algorithm which was split into nine sections. The artefact that TP was searching for at the beginning of the movie is one of these pieces – Sator already possesses the other eight artefacts. Sator uncovered the first piece while searching for plutonium in his old town, Stalsk-12.

Priya then explains that she used TP to steal the artefact, allowing Sator to obtain the last piece; her excuse is that it was the only way for them to know where all nine artefacts would be. TP recalls his earlier conversation with Michael Crosby about a detonation at Stalsk-12, the same day as the Kyiv opera siege. Remembering this, TP deduces that Sator plans to bury the completed artefact underneath a hypocentre at Stalsk-12[178]. Having concluded this, TP arranges for a full-scale assault on that day to stop Sator. Of course, this means that they have to travel backwards in time again until "the 14th."

While travelling on a ship (moving backwards), TP reveals that a watch on Sator's wrists is directly linked to the detonation device at Stalks-12; if the watch picks up that Sator no longer has a pulse, it activates a detonation timer. This means that Sator plans to kill himself in order for the explosion to occur. TP questions

[177] Explaining some of these theories would be superfluous for the current purposes.
[178] Merriam-Webster (2024) defines a hypocentre as the point on the Earth's surface directly below the centre of a nuclear explosion. Although the explosion in the film is not nuclear, it is clear that Sator plans to bury the artefact by placing it below the hypocentre (point of explosion). Also, the artefact is enclosed in a container to prevent any damage.

Kate on why Sator would essentially kill himself to detonate the explosion. She explains that Sator is suffering from terminal cancer and wishes to end the world along with himself. By creating such a large detonation, a record would be kept in history, thus leaving a trail for the future. The future would be able to follow these temporal breadcrumbs to the buried artefact, allowing them to invert the world. Kate's role in aiding the mission is to kill Sator once Niel and TP have acquired the artefact. The only problem is that, as mentioned, Sator possesses a "deadman's" switch on his watch that is set to activate the explosion once his heart stops beating. Sator plans to take his own life while on vacation, moments after the Kyiv opera siege – remember that the characters have travelled backwards in time till this point. Hence, Kate needs to kill Sator after TP has obtained and secured the artefact; otherwise, it will be buried by the explosion. It should also be noted that although these events are occurring in the past, Sator has inverted himself till this point in time. Therefore, Sator knows of Kat's betrayal in the future, and of TP's plan to stop him.

Niel, TP, and Kate prepare to commence their operation; it has to be perfectly timed. Niel and TP belong to two separate groups: the red and blue teams. In order to combat the enemy's tactical use of inversion and to gain information, these two teams aim to create a temporal pincer movement[179], with the red team moving forward in time and the blue team moving backwards (inverted). Each team has a countdown of ten minutes relative to the time of the explosion. The blue team's countdown commences from ten minutes after the time of the explosion, whereas the red team's countdown commences ten minutes before the explosion[180]. It is important to note that although the blue team is moving backwards through time, they share the same spatial reality as the red team: the two groups perceive each other, see and feel the effects of each other's actions; the blue team, for instance, witnesses explosions made by the red team (in reverse of course). Likewise, the red team experiences the same phenomena. All events occur in the present; however, the red team encounters the effects of future events, and the blue team perceives the effects of past events. To place more chaos into the mix, the enemy also has inverted and non-inverted soldiers. During this onslaught, TP and a Tenet agent, Ives (Aron Taylor-Johnson), aim to enter a tunnel that leads to where the artefact is hidden.

To ensure that Sator does not kill himself before TP can retrieve the artefact, Kate seduces her past/current husband. It should be noted that Sator would trust Kate because, to his knowledge, the Kate in front of him is the past/current Kate, who is still obedient and unaware of his world-ending plans.

While on the battlefield, Niel (inverted; the blue team) witnesses one of Sator's men, Volkov (Yuri Kolokolnikov), plant a trip wire set to explode once someone runs through it. The man is moving in reverse, indicating that this is/has occurred in the past. Understanding that this is meant for TP, Neil sneaks into the

[179] Merriam-Webster (2024) defines a pincer movement as "a military attack by two different coordinated forces that close in on an enemy position from different directions." Therefore, a temporal pincer movement entails the same premise; however, in this case one military force moves forward in time while the other moves backwards in time.
[180] It should be emphasised that the team's goal is not to stop the explosion but to retrieve the artefact; either way the explosion will occur.

enemy's inversion machine to un-invert himself and warn TP. However, he is too late as he watches TP and Ives enter the tunnel, setting off the explosion and blocking the entrance of the tunnel.

Thus, as TP and Ives enter the tunnel, an explosion blocks its entrance. Niel thinks on his feet and enters a vehicle heading towards an unknown location. TP and Ives continue down the tunnel, where they see a locked gate and a dead soldier (with a blue patch on his shoulder and a red string hanging out of his backpack) on the other side. While they try to unlock the gate, Volkov enters the scene, holding them at gunpoint with Sator on the phone. Sator gives a typical villain speech: his bargain with the future (money for time), his just cause for killing the world, TP's blind faith, etc. During Sator's monologue, Niel has almost reached his destination.

Once Sator has completed his monologue, he orders Volkov to kill TP. Luckily, as Volkov fires his gun, the dead soldier inverts back up and is shot instead; the gate springs open. TP lunges forward to prevent Volkov from dropping the artefact down a long pipe. While TP attacks Volkov, the once-dead soldier moves backwards up the tunnel they came through. TP succeeds in stopping Volkov by throwing him down the pipe. However, before they can secure the artefact and signal Kate to kill Sator, out of hatred, she decides she will not give Sator the satisfaction of, thinking he has achieved his goal before dying; thus, she kills him and throws him off the ship. In doing so, the timer for the bomb is started before TP has secured the artefact.

TP and Ives are told that Kate has killed Sator, and see that the clock on the wall has begun to tick down – they cannot escape through the entrance as it has been blocked by the explosion. As they desperately try to recover the artefact from its container, Neil has reached his destination: right above TP, where a large hole is present. Neil frantically lowers a cable (with a hook at the end), attached to his car, into the hole. TP and Ives grab the cable and attach it to the artefact's container. Niel drives forward, propelling TP and Ives out of the underground area as the explosion goes off.

While Ives and TP catch their breath, they are surprised to see Niel, who is supposed to be inverted. Niel explains that he reinverted at the last minute of the battle. Ives asks TP how he opened the gate but TP states he never did. The artefact lies safely in its container between the three of them but is quickly taken by Ives, who has his gun pointed at TP. The three of them know that due to the dangers the artefact possesses "No one who's seen this leaves the field," (Nolan, 2020) indicating Ives has been ordered by Tenet to kill TP and Niel. Fortunately, Ives separates the artefact into three pieces and states that each man should hide their piece and then end their life; whenever that may be, is their choice.

Although everything seems to have ended happily, Niel calls Ives, who has started to make his way to a helicopter. Niel hands his part of the artefact to TP, who does not understand why Niel wants to go back into the past. Niel asks Ives, "I'm the only one who could've opened that gate in time, right, Ives?" to which Ives responds, "Well, I don't know any locksmiths as good as you" (Nolan, 2020). TP sees a red string dangle

from Niel's backpack. This confirms that Niel was the soldier on the other side of the gate. It was not TP who was able to open the gate but the inverted version of Neil who unlocked it and sacrificed himself in order to save TP. Emotional, TP asks Niel who it was that recruited him. Niel reveals that it was in fact TP that recruited *him* in the future, stating that TP "[has] a future in the past. Years ago, for me, years from now for you" (Nolan, 2020). Niel also claims that the entire operation, from start to finish, is a temporal pincer created by TP in the future. Essentially, this means that TP is (will be) the founder of Tenet.

Analysis of Polychronic Narration in Tenet

From the above information, it is clear that *Tenet's* complexity lies in the constant inversion and re-inversion of characters. This causes a plethora of questions concerning which character is in which time (past/present or future), when certain events occur, the relationship between certain events (forward and backward moving events), and the mechanisms of time. It can be understood thus why *Tenet* is the last film to be discussed. It seems that after years of toying with film's complexity, Nolan has created a film that fully embodies his fascination with time and time's unknowable complexity. As stated before, Nolan has used time as a narrative tool to various degrees in his films, as discovered thus far; however, time in *Tenet* is the core narrative element and is on full display[181]. Nolan does not ease the viewer into time's deformity, then relax its complexity and then ease back into it; the viewer is thrown into the deep end from the start, which only deepens as the film progresses.

By utilising the theory of entropy, Nolan has created a temporally different storyworld than that seen in *Interstellar*, the closest temporally complex film to *Tenet*. In both films, Nolan relies upon a scientific theory to represent time's complexity and possibilities. In *Interstellar,* it was seen that Nolan used Einstein's theory of relativity. This created an intricate timeline where certain events occupied multiple temporal 'points', thus simultaneously joining the past, present and future. In doing so, Nolan brought into question the relationship between cause and effect: e.g. Murph experiences in the present an effect of a cause taking place centuries in the future. In *Tenet,* Nolan continues to question this relationship. However, he takes it a step (or a few steps) further, creating a storyworld that exploits time's movement to such an extent that *Interstellar's* complexity is overshadowed by *Tenet's*.

As mentioned, *Tenet's* unsuccessful box-office performance can be attributed to its confusing structure. True, *Interstellar* contained a complex temporal structure; however, the narrative's storyworld is relatively easy to follow. Its polychronic nature arises as a result of certain events in the future affecting the past and time's relativity differing on other planets, thus causing time differences between different perspectives, hindering their definitive temporal ordering. Despite this causing a fractured timeline, the viewer can still follow the two perspectives logically. *Interstellar* could also not show direct engagement with the past, as is

[181] At the time of writing, Nolan has yet to direct another temporally complex film. His most recent film, *Oppenheimer* (2023), utilises Genett's traditional analepsis and prolepsis.

seen in *Tenet*: Cooper could only interact with the past through gravity. In contrast, *Tenet* does not follow these same rules: the characters can travel backwards in time, directly engaging with the world around them. Additionally, two versions of the same character can exist, one moving forward and one moving backwards. However, if the backwards-moving character re-inverts themselves, two versions of the same character can exist moving forward.

This creates a convoluted narrative where two timelines can exist simultaneously but move in opposite 'directions'. The start of the forward-moving timeline commences at Kyiv on "the 14th", where TP finds the artefact and is captured. At the same time, the "future" Protagonist is securing the artefact at Stalks-12. Cause and effect do not exist in a traditional sense. The viewer is witnessing the effects of causes that have yet to occur from the perspective of the forward-moving trajectory but have occurred at a future time from the perspective of the backwards-moving trajectory: TP is yet to set in motion the events that led to saving the world, yet said events have already saved the world.

Another example is Niel's death. In order for TP to escape the tunnel, Niel has to unlock the gate and sacrifice himself. However, Niel is still alive after the gate has been opened – he pulls TP out of the tunnel and converses with him. How is it possible for them to reach this point if Niel had to die? This is because of the two opposite moving timelines. After they have escaped the tunnel, Niel will invert himself again to unlock the gate and sacrifice himself. This means that in the storyworld, there are two Niels at that moment: Niel, who has died, and Niel, who has yet to die.

As can be imagined, a storyworld containing such a radical use of time cannot be 'captured' by traditional temporal theories such as Genette's. In fact, the different timelines running 'parallel' to each other makes it impossible to construct a timeline, even an attempted one, as seen in the other films. Therefore, the analysis of polyphonic narration in *Tenet* will be adjusted to accommodate its unique structure. This will be accomplished by providing a diagram (see Figure 11) depicting the characters' movement through the two timelines, instead of the two figures used in the previous films. The first step in analysing the film's polychronic narration – identifying whether it is inherently inexact or inexactly coded – will, however, remain the same.

Up until this point in the dissertation, both inherently inexact and inexactly coded narratives have been identified from the selected Nolan films. It was revealed that *Dunkirk* and *Memento* are coded inexactly. This is because time's deformation is not an inherent quality within the storyworld. In *Dunkirk,* prolepsis and analepsis are exploited to create indeterminacy, due to Nolan's decision to consistently bounce back and forth between three perspectives occupying different temporal points (past, present and future). Nolan has stylistically ordered these events as fractured; without Nolan's interference, they would follow a traditional chronological order (cause and effect). In *Memento*, time is deformed because the narrative is played out

through Leonard's perspective, thus emphasising how he sees the world. All other characters that occupy the same storyworld experience time normally; hence, it's inexactly coded.

On the other hand, it was shown that *Interstellar* is inherently inexact. This is because instead of fracturing the order of the events in a chronological storyworld, Nolan is directly addressing the existence of time's radical potential. Cooper's experience of time on Miller's planet (one hour on Miller's planet equals seven years on Earth) is not a result of Nolan's stylistic decision or Cooper's subjective perspective. Rather, time's existence within the storyworld's structure and function causes this temporal difference between Cooper's and Murph's perspectives. Therefore, the narrative has been identified as inherently coded.

With the knowledge already accumulated throughout this chapter, *Tenet's* coding should be apparent. As with *Interstellar*, Nolan is addressing time's potential nature and complexity, albeit in a much more direct manner. The most prominent difference between time's deformation in *Interstellar* and *Tenet* is that in *Tenet* the characters purposely alter the movement of time. This is used to such an extent that within the storyworld, there are two timelines that exist simultaneously: one moving forward and one moving backwards. True, without the characters' intervention, time would move in a 'standard' chronological fashion. However, time's alteration is still not credited to the subjective perspective of an individual (*Memento)*, or due to Nolan's stylistic ordering (*Dunkirk*). Once an individual is inverted, time begins to move backwards, reversing the effects of any action, while, at the 'same time', anyone who is not inverted still moves forward. Hence, the storyworld cannot be described as containing a chronological structure where time moves definitely forward in a cause-and-effect-like manner. Instead, *Tenet's* storyworld contains two parallel timelines – one moving forward and the other moving backwards – that characters can manipulate and travel between. Therefore, *Tenet's* coding can be identified as inherently inexact.

Identifying *Tenet's* coding brings us closer to answering if and how polychronic narration has been used. However, its temporal structure needs to be identified for indeterminacy in order to classify it as polychronic. As mentioned, the issue that presents itself is that *Tenet's* temporal structure is deformed to such an extent that the previous method used for analysing indeterminacy in the earlier films is not applicable. Herman's method for identifying indeterminacy in films – limited to *The Sweet Hereafter,* which was inexactly coded – has already been identified as deficient in certain respects when applied to Nolan's films[182]. This is especially prevalent in inherently inexact films, which Herman does not directly address. Therefore, to better understand and analyse polyphonic narration in Nolan's films (and temporally deformed films in general), I have updated Herman's method in certain subtle ways to better accommodate the unique features of some of Nolan's films[183]. *Tenet* is no different. Herman's theory, as is, cannot appropriately analyse *Tenet's*

[182] This is not the case with *Memento*. The film's viewing experience is indeed anarchic; however, its polychronic structure is similar to *The Sweet Hereafter*.

[183] This was seen in *Interstellar's* analysis, where Figures 6 and 7 contained events marked in red to indicate their existence at multiple temporal 'points'. Events affected by one another but existing in different time periods within the

indeterminacy. Moreover, the additions I have already made, as seen in the sub-section on *Interstellar*, are also insufficient. Hence, there is a need to approach the analysis of *Tenet's* temporal structure differently.

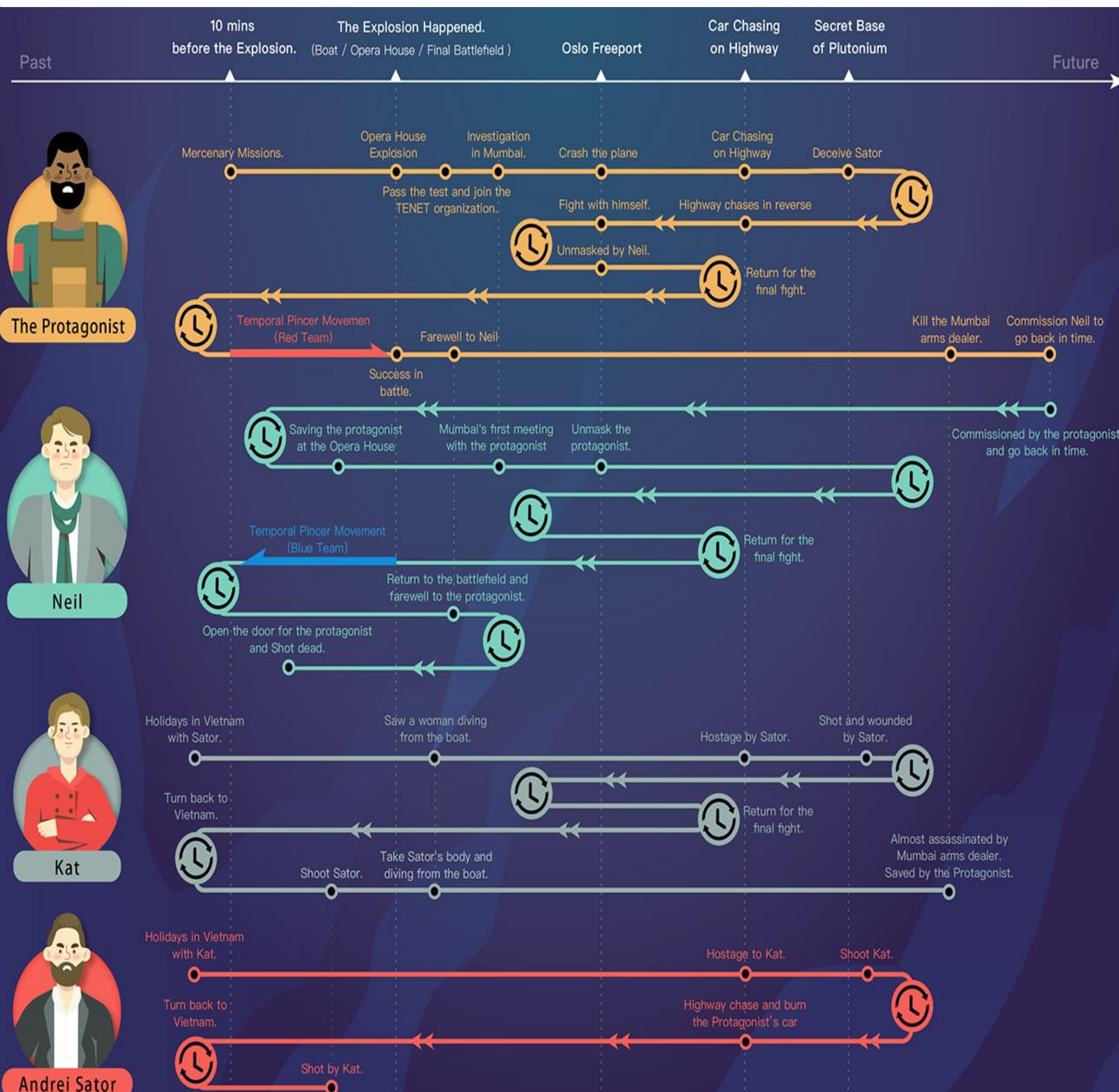
As mentioned earlier, I will not provide two Figures detailing an attempted reconstruction of the storyworld timeline alongside the order in which events were shown to the reader. This is because of *Tenet's* unique temporal structure. This is firstly because, similar to *Interstellar*, it is not possible to construct a timeline where events have been ordered due to preference; their existence resists definitive placement altogether. Secondly, the order of events shown to the reader is not fractured. True, cause and effect are reversed, and future events are shown in conjunction with past/present events; however, this is not due to the order of events being jumbled. Moreover, we cannot limit events to conforming to traditional definitions of 'past', 'present' and 'future': in *Tenet*, the future exists *in* the present/past; what will happen is happening or already has happened. At the end of the film, Niel has already died, yet at the same time, he still needs to die.

To best analyse polychrony in *Tenet*, we need to investigate the moments of inversion. Thus, we need to compare the forward-moving timeline with the backwards-moving timeline and discuss their relation to one another. Therefore, I will be using Figure 11 to represent both movements of time as well as each character's movement 'through' each timeline. This will allow for a visual representation of *Tenet's* temporal structure as well as each character's involvement in time deformation. To provide the most optimal investigation of *Tenet's* temporal structure, I will be focusing on two crucial moments within the film: the events before and during the battle at Stalks-12 and the artefact's capture at Tallinn. It will be seen in Figure 11 that there are several moments of inversion, many relating to one character. However, it would be unproductive to examine each moment of inversion. It will also be evident that Figure 11 correlates well with the synopsis provided above: it allows one to follow the plot while examining the moments of inversion.

---

storyworld (past and future) were also placed alongside one another; thus events **4** and **120** were placed next to each other on the timeline.

Figure 11:Example of *Tenet's* Temporal Structure and The Characters' Movement Through Time



As seen above, Figure 11[184] does an excellent job of presenting each character's movement through time using inversion as well as *Tenet's* complex temporal structure. Figure 11 also emphasises my earlier

[184] The Figure was developed by Jin, 2024. The grammatical errors found within are noted.

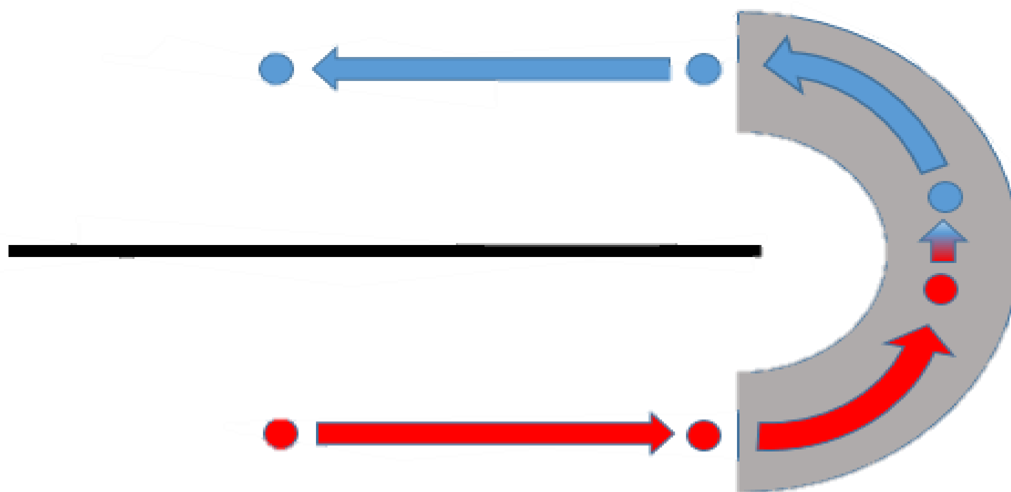
statement that *Tenet's* storyworld cannot be represented through a traditional timeline, even a reconstructed one, as seen in the earlier sections. The diagram is conveniently arranged to focus on the two main moments of inversion highlighted earlier. The horizontal timeline at the top is separated into the main moments: the battle at Stalks-12 ("10 minutes before the explosion" and "the explosion"), Oslo Freeport and the artefact's capture at Tallinn ("car chasing on the highway" and "secret base of plutonium"). Moving downwards on the vertical axes, each character's movement through time during these three crucial moments in the film is shown. The clock icons in Figure 11 indicate the moments in the narrative when a character inverts or reinverts themselves; arrows are used to indicate when a character is moving backwards through time. Although the characters' movements are separated to allow for a better understanding, it must be remembered that their movements are intertwined with each other, creating a far more intricate temporal puzzle (see Figure 16). Nonetheless, this will become evident as we examine each important moment of inversion, commencing with events surrounding the artefact's capture. The purpose for starting later into the narrative is that, at this point, TP begins his backward movement through time.

Referring to Figure 11 and the synopsis of the film provided earlier, it is known that at this point in the narrative, TP and Niel have made a deal with Sator to help them retrieve the artefact (i.e. the plutonium) — TP does not yet know that the 'true' artefact is an algorithm used to invert the world. After retrieving the plutonium from Ukrainian special forces, TP witnesses a car reversing down the highway towards them; it is Sator with a gasmask on (indicating that he is inverted), holding Kat hostage. He also sees an unknown car reverse from being flipped over to driving in reverse next to them. Not understanding what he is giving Sator and wanting to save Kat, TP throws the artefact over the other unknown inverted car to Sator. Sator exits into another car, leaving Kat in the inverted car, which is speeding backwards to a fleet of cars. TP is able to stop the car. However, they are quickly surrounded by Sator's men; Niel calls in the "cavalry" (Nolan, 2020). The cavalry Niel calls for is revealed to be Tenet's soldiers. However, before they are able to arrive, TP and Kat are captured and escorted to Sator's secret base – not far away from where they were captured.

It is at this moment that the viewer and TP are directly confronted with and learn in full about Sator's plan and about inversion. At Sator's base is an inversion machine; there are two sections to this machine: the forward-moving section, which has a red hue and the backward-moving section, which has a blue hue[185] (see Figure 12). The diagram represents how an individual uses the machine to invert/re-invert themselves. A character can occupy either side, inverted or not. However, a character must enter the machine through the red side to be inverted. The perspective of an observer will be different depending on which side he or she is on. If an observer is on the red side (moving forward), he/she will witness what is going to occur. However, they will see the 'blue' events in reverse due to time moving backwards. If an observer is inverted, thus on the blue side, they are moving backwards 'into' the past. Therefore, they will witness the events on the red side in reverse.

[185] These two colours are used to differentiate between the forwards moving timeline and the backwards moving timeline. Red and blue will also be used to distinguish between the inverted and the forward-moving Tenet soldiers at Stalks-12.

Figure 12: The Inversion Machine[186]



Sator uses this temporal anomaly to his advantage. After being captured, TP (on the red side) sees Sator (on the blue side) reverse towards the machine with Kat wearing a gasmask and bound[187]. Sator forces Kat to sit on a chair facing the red side (see Figure 13). TP hears Sator speak in reverse; however, an intercom translates his words back to normal. Sator interrogates TP about the location of the algorithm, whether it was hidden in the fire truck or the BMW (the car TP was driving). Sator asks if he truly left the artefact in the BMW. Shocked, TP asks who told Sator; however, pressed for time, Sator has shot Kat[188], resulting in TP frantically confirming that the artefact is hidden in the BMW in the glove box. Suddenly, the present (red-line) Sator appears and asks the same question. TP states that he has already told Sator (the future version of Sator occupying the blue-timeline). The present Sator sees his future-self reverse towards the inversion machine, thus believing TP. Suddenly, a team of soldiers bursts into the facility, forcing Sator into the inversion machine and into inverting himself. From the red side's perspective, nothing exits the machine on the blue side; Kat sits motionless in the chair.

[186] Stack Exchange, 2024.

[187] This indicates that, unlike Sator, Kat is not inverted. The reason why she is wearing a mask, and Sator is not, is that air is inverted within that side of the machine. This indicated that after being captured, Kat was sent to the blue side of the machine while the Protagonist was sent to the red.

[188] In Figure 13, a bullet can be seen embedded in the glass screen. This bullet hole is present before Sator shoots Kat; once Sator places Kat against the screen, from the forward-moving perspective, the bullet reverses out of the glass, through Kat and back into the gun – the effect (the embedded bullet) is seen before the cause (Sator shooting Kat).

Figure 13: Sator Holding Kat Hostage in The Future (the blue section), Seen From The Red-sided Perspective

The film continues by showing the perspective of the inverted Sator next, thus showing the viewer the previous events from the perspective of the blue side (see Figure 14). Sator witnesses the previous events in reverse, from him exiting the machine (entering from the red's perspective) to TP answering the questions he is about to ask and shooting Kat. Therefore, the same events on the red side play out as previously described, just in the opposite direction. However, from the blue side's perspective, the viewer witnesses how the previous events on the blue side took place 'normally'. After Sator inverts himself, he moves 'into' the past; thus, he hears TP's answers from last to first. This means that Sator hears TP claim that the artefact is in the BMW. To confirm this statement, Sator shoots Kat and threatens to do it again if TP does not tell the truth. TP answers again that the artefact is in the BMW. Sator takes Kate hostage and continues to travel through time to look for the artefact in the BMW. Again, Kat is not inverted; therefore, her movements are seen in reverse to the inverted Sator. Inverted Sator hears the past Protagonist state that the artefact has been hidden in the glove box. The inverted Sator takes Kat hostage again and moves backwards through time to steal the artefact from the past Protagonist. The inverted Sator searches the BMW but does not find the artefact. Thus he 'then' continues back in time to when the past Protagonist has secured the artefact, directly after stealing it from the Ukrainian Special Forces.

Figure 14: Sator's Perspective (the blue side), Interrogating The Forward Moving Protagonist (the red side)

Returning to the present, soldiers on the blue side (wearing masks) can be seen examining Kate, claiming that she has been shot. The leader, Ives, tells them to bring her around to the red side. TP asks Ives where Sator went, to which he replies, "The past" (Nolan, 2020). Niel then enters the red side and is immediately confronted by TP, who questions Niel's loyalty and how Sator knew their every move. Ives explains that Sator and his men performed a temporal pincer movement, where one team moves forward, documenting the events for the team that moves backwards; hence, the backwards-moving team knows precisely what will/had happen(ed). TP also tells Niel that he lied to Sator about the artefact's location[189].

The medics tending to Kat inform them that Kat's wound (caused by an inverted bullet) is too severe, indicating that she has roughly three hours to live. Niel offers a solution i.e. inverting Kat to stop the growing damage. The only problem is that it would take days, while inverted, for her wound to heal (approximately a week), after which they would need to reinvert her. Although this could work, Ives highlights that they do not have control over this inversion machine a week in the past. The only other machine they are aware of is at the Freeport in Oslo, which TP highlights is vulnerable a week into the past (the day they broke in to retrieve the Goya painting). With this in mind, they invert themselves and prepare to travel backwards. However, TP fears that the inverted Sator will kill the past Kat, asking Neil if she was killed in the past, "What happens to her here?" (clearly still thinking in linear terms), to which Niel replies, "That's unknowable. If you're there to make a change, you're not here to observe its effect […] What's happened happened" (Nolan, 2020). Despite Niel's objection (afraid that TP does not understand the mechanics of inversion), TP proceeds to equip himself and leave the facility.

---

[189] The Protagonist saw the bullet hole in the mirror separating the two sides, indicating that she will be shot/has already been shot. Therefore, he lies to Sator.

While moving backwards through time, TP enters a vehicle and drives backwards to the point where his past-self hands over the artefact's case to the inverted Sator. It is at this time that the inverted Protagonist catches up with the inverted Sator. During this intense scene, the inverted Protagonist's car is 'squished' between the inverted Sator's car and the past Protagonist's car. Sator can be seen holding the artefact case; however, in the back seat of the inverted Protagonist's car, the artefact can be seen jumbling around and shooting out of the passenger window back into the past Protagonist's car. This means that when the forward-moving Protagonist saw the inverted car, he threw the artefact into the inverted Protagonist's car. Seeing this, the inverted Sator radios his forward-moving henchmen to retrieve the artefact from the car when it reaches the facility[190]. Unfortunately, the inverted Protagonist's car is hit, causing it to roll. Fortunately, he is saved (it is unclear by who and how) and returned to the facility, where he, Niel and Kat begin making their way backwards towards the Oslo Freeport.

As stated earlier, in *Tenet*, Nolan seems to have no mercy for the viewer. Throughout the film, the viewer is introduced to inversion through brief explanations and by witnessing inverted events. However, there is no 'break' in the film when time seems normal, and the viewers are able to take a moment to orient themselves and make sense of what is occurring. Instead of providing this grace, Nolan constantly presents confusing events like the one described above, showcasing inversion to full effect.

The above events showcase well how inversion works for the viewer. Previously, the viewer has seen the effects of inverted things and characters in the forward-moving timeline: bullets moving from the point of impact back into the gun, characters moving backwards, cars driving in reverse, and people speaking backwards. However, during these events, the viewer is witnessing the forward-moving and inverted timelines side-by-side. In doing so, Nolan is revealing to the viewers that they cannot regard the film as linear and that although we can distinguish two temporal movements (one moving forward and one moving backwards), we cannot separate them; they exist 'simultaneously'. In addition, Nolan is forcing the viewer to engage with the concept that events do not have a traditional cause-and-effect relationship whereby we can place one event as occurring before or after another: TP is asked questions by an inverted Sator, yet at the same time, the present Sator has not inverted yet. This is seen again when Neil tries to convince TP not to go out and stop the inverted Sator when TP has already done so. This is also seen when the forward-moving Protagonist throws the artefact into the inverted Protagonist's car. Therefore, even though the forward-moving Protagonist has yet to invert himself, climb into the car, and drive after Sator, he has already done so: effect before the cause.

This is also why Niel does not stop TP from going after Sator (even though he already has). TP fears that the inverted Sator will kill the past Kat. However, when asked what will happen if she is killed in the past, Niel

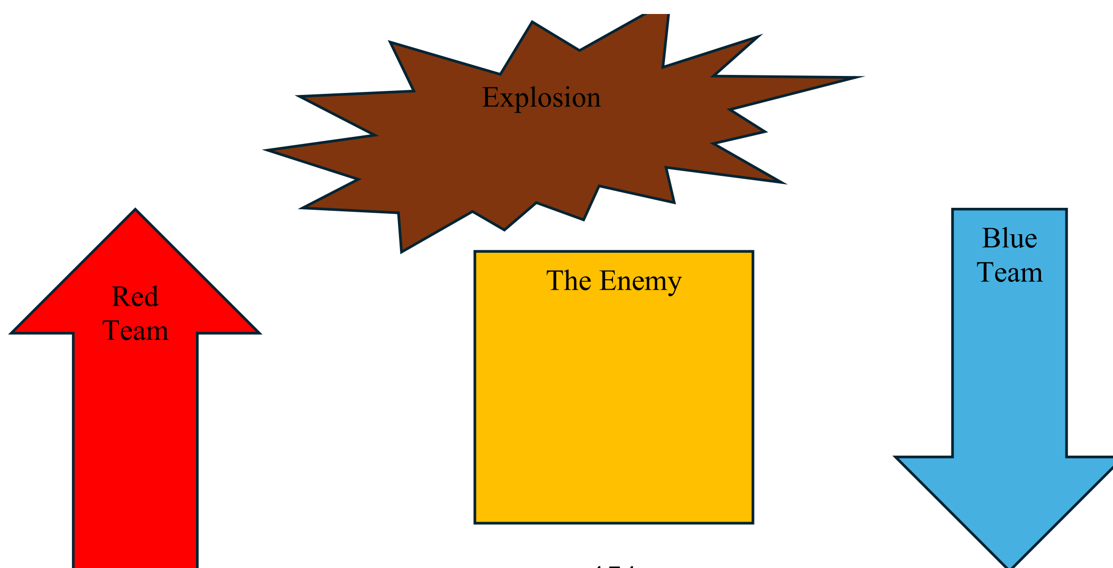
[190] This is possible because the forward-moving henchmen witness inverted characters and objects in reverse. Thus, in their timeline, the inverted Protagonist is moving backwards from retrieving the artefact all the way till he is inverted at the facility. Therefore, the forward-moving henchmen can follow the car backwards until it is at the facility, and the inverted Protagonist exits the car into the facility, to the point in time when he obtained the artefact.

responds by saying, "What's happened 's happened" (Nolan, 2020). In the forward-moving timeline, Kat has been rescued by the Tenet organisation, meaning that inverted Sator will not kill her in the past because his actions have already occurred, even if, through the inverted timeline, he still needs to act on them. Neil understands this; hence, while they are in the backwards-moving timeline, he does not stop TP – he merely tries to help TP understand how inversion works - because he knows TP will go after Sator as he has already done so.

After these chaotic events, Figure 11 shows each character's movement through time: TP, Niel and Kat, make their way to Oslo, and Sator continues moving backwards until his vacation in Vietnam, where he plans to end his life on "the 14th". As stated, it would be superfluous to examine each moment of inversion in the film; therefore, the last investigation of *Tenet's* temporal structure will be focused on the events surrounding Stalks-12. These events again showcase inversion in full force and better represent the two timelines moving together than the events at Tallinn. Also, the viewer is able to witness a temporal pincer movement that was only described in the Tallinn scene.

Figure 15 separates the events at Stalks-12 into two categories: ten minutes before the explosion and the time of the explosion. This is important due to the temporal pincer movement (see Figure 15), where both teams operate in a ten-minute window in relation to the explosion. As seen in Figure 15, the blue team moves backwards in time for ten minutes starting from the time of the explosion. On the other end, the red team moves forward ten minutes before the explosion. The purpose of this operation is first to gather information for the red team. Similar to how the inverted Sator was able to inform his forward-moving henchmen about the artefact's location, the blue team is able to communicate to the red team about what will happen. Therefore, the two teams are able to work in unison on the battlefield. Another reason for this specific temporal strategy is to combat any inverted enemies, as there is an inversion machine within the enemy base – it has been made clear the disadvantage one side has if they are not able to counter any inverted soldiers.

Figure 15: The Temporal Pincer Movement at Stalks-12



From the synopsis provided before, it is known that the goal of this entire operation is not to stop the explosion but to capture the artefact before the explosion is able to bury it, thus giving the future the coordinates of the artefact[191]. Unlike our analysis of the events surrounding Tallinn, I will not provide a detailed account of all the events that occur during this temporal pincer movement. Instead, I will focus on the two teams' 'simultaneous' movement through time and Niel's sacrifice at the end of the mission.

From the investigation of temporal anomalies at Tallinn, it has been emphasised that we cannot regard the events in the film with a linear mindset. In fact, before the operation commences, TP informs Ives that he wants to be on the 'first' wave – TP is referring to the blue team, which theoretically is the 'first' wave, as they are the ones who brief the red team about what will happen – however, Ives reminds TP that "there is no first wave. Red team and blue team operate simultaneously. Look, don't get on the chopper if you can't stop thinking in linear terms" (Nolan, 2020). Ives's words are almost a warning to the audience not to watch the following events with a linear mindset.

Nolan certainly asks a lot from viewers, especially if this is their first time watching the film. Ives's words ring true. For viewers to fully understand what is occurring in the film, they need to supplement their understanding of time with *Tenet's* theory of time. Although the blue and red teams move in opposite temporal directions, they both exist in the NOW. The difference is that the blue team is traversing towards the past, meaning they see events that have already occurred in reverse; they witness the red team move in reverse, broken buildings become repaired, and explosions revert to the point of origin. On the other hand, while moving forward, the red team perceives the blue team and its actions in reverse. This is because both teams are experiencing the effect before the cause. The blue team perceives the effect of what has already happened before it perceives the cause, while the red team perceives the effect of what still has to happen; the red team is merely catching up to the point of origin. This was seen in Tallinn when the inverted Protagonist moves in reverse to the forward-moving Protagonist. This is because, from the perspective of the forward-moving timeline, we are following the inverted Protagonist back to the point of origin, his inversion at the facility.

These reasons explain Niel's situation at the end of the film. In the synopsis, it was stated that the inverted figure who opened the gate and sacrificed himself in the tunnel is the Neil-from-the-future. This is because forward-moving (present) Niel will invert himself after saving TP to unlock the gate and sacrifice himself. This is a perfect example of the inverted and the forward-moving characters existing simultaneously. If these two movements of time had not existed simultaneously, then TP and Ives would not have been able to escape. These events depict what was argued earlier about the effect occurring before the cause. In the forward-moving timeline, TP and Ives are experiencing the effects of Niel's future inversion. Therefore, Niel has died and, at the same time, still needs to die; the forward-moving timeline has yet to catch up to the

[191] As mentioned during the synopsis of the film, the reason why the explosion would give away the coordinates of the artefact is due to prosperity. Such a large explosion would not go unnoticed historically. Therefore, any future agents would simply need to trace the burial of the artefact to this point in time.

origin of Niel's inversion. Saddened, TP asks if there is a way to go back and change Neil's soon-to-be death; however, Niel gives TP the same answer he gave in Tallinn, "what's happened's happened" (Nolan, 2020). This shows that there are still limitations to inversion.

Although TP is disheartened by Niel's death (soon-to-be death), Niel informs him that their adventure has only begun and that his death is a fitting end to a long friendship. What Neil means by this is that the events that have caused their meeting and success still need to occur in the future: TP will go on to recruit Neil in the future and engage in all sorts of missions. Again, on a much larger scale, Niel indicates that what still needs to happen has already happened. He also points out that their entire mission, all the events (future and past), has been a temporal pincer movement created by the future Protagonist. While TP and Niel are saying their goodbyes, the past Protagonist is in Kyiv, being captured and setting what has already occurred in motion. Hence, the temporal pincer movement; while trying to save the world, the world has already been/is being saved.

The analysis of *Tenet's* temporal structure has revealed that the narrative was more complex than originally expected. However, this has only solidified the earlier arguments that *Tenet* is Nolan's magnum opus of temporal deformation. From the examination of the film, it can also be argued strongly that its poor box-office performance is due to its radically complex structure, requiring multiple viewings to gain a full – or semi-full – understanding. Indeed, *Tenet's* place as a genre-changing film is interesting. However, our analysis of *Tenet* is focused on its potential classification as polychronic.

It should go without saying that *Tenet* cannot, in no shape or form, be analysed using traditional temporal theories such as Genette's. The film's temporal structure does not allow for it to be represented on a chronological timeline, nor can an attempted (re)construction of its timeline be created, as seen in earlier sections. Time in *Tenet* simply resists any definitive ordering. Although it is clear that traditional temporal theories cannot be applied to the film, its polychronic status cannot be so easily proven.

Throughout this dissertation, it has been emphasised that polychronic narration occurs when inexactness is exploited to such an extent that certain events become indeterminate. Uncovering indeterminate events within Nolan's films has been the main method for determining whether the film is polychronic or not. In all the films thus far, whether they are partial or multiply ordered, there has been evidence of indeterminate events, where some events could not be definitively sequenced. This may not be the case in *Tenet*.

This is due to *Tenet's* complicated, inherently inexact structure. The film does not switch between the future and present, thus utilising analepsis and prolepsis; the future exists *in* the past; and both the past and the future exist in the present. When the film switches perspectives between the red and blue teams, it does not jump between the present/past and future – again, these two timelines occur simultaneously. This is not the same as the two perspectives in *Interstellar*, where analepsis and prolepsis were used to create uncertainty

about the order of events. In *Tenet,* we know that TP is captured, introduced to Tenet, deceived at Tallinn and successfully secures the artefact at Stalks-12; some future events are also known, such as the recruitment of Niel and the plan to send him back to help the past Protagonist. Therefore, there is no real confusion about whether an event occurs in the past or future. The problem is the reversal of cause and effect.

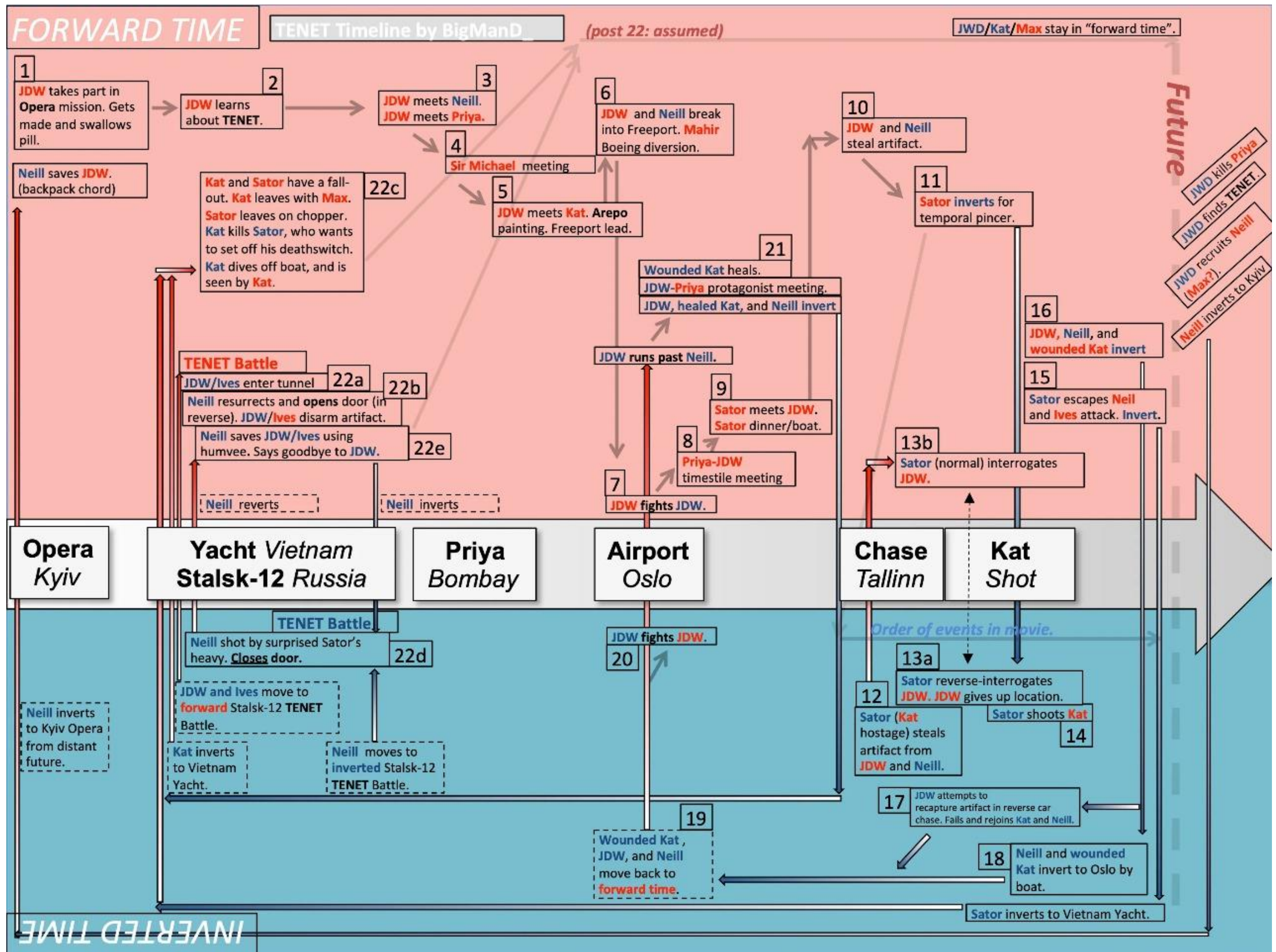
Cause and effect are clearly at the centre of the film's radical temporal structure. The film allows events to exist before they are even caused. Niel has already died before he sets in motion the events causing his death; therefore, there exist two versions of Niel in the present: Niel, who has yet to die, and Neil, who has already died. These events are not indeterminate in relation to their order: Niel rescues TP, inverts himself, unlocks the door, and is shot. However, they are indeterminate simply because they cannot be classified as before or after. This is not because the film has jumbled the order to the point where we do not *know* the order, but rather because these events exist in multiple temporal 'directions' where the order is not bound by the laws of cause and effect. It cannot be said that Niel's death comes after escaping because his death is the reason for their escape. There is no after; there is only what has happened.

To therefore try to answer the question of whether the film is polychronic, I would argue yes. In polychronic terms, the film can be labelled as inherently inexact and multiply ordered. However, as argued with traditional temporal theories, polychronic narration (as it stands) does not appropriately describe the temporal complexities found in *Tenet*. I have already highlighted that Herman's polychronic theory requires adjustments when analysing films with a radical use of time, adjustments which I have already provided. However, it seems Nolan has completely 'bested' Herman when it comes to *Tenet*. As I have stated, Herman's polychronic theory directly addresses narratives where prolepsis and analepsis have been exploited to such an extent that they cannot definitely be sequenced (indeterminate). True, when analysing multiply ordered temporal narratives, such as *The White Hotel*, Herman argues that such indeterminacy is caused by time's inherent deformation, thus showing an effect before the cause: Lisa feels the pain in her breast caused by her rape and murder in the future (Herman, 2004:257). This reversal of cause and effect is, however, not as radical as in *Tenet* or even in *Interstellar*. Herman argues that the pain itself is temporally indeterminate: "They necessarily appear in time but cannot be located at some definitive point along a chain of causes and effects that unfolds linearly in time" (Herman, 2004:257). By no means does this describe the indeterminacy that is present in *Tenet*. In *The White Hotel*, the cause and its effect still exist at different times in the storyworld. In contrast, *Tenet* creates a storyworld where the effect can come before the cause while, at the same time, the cause has already occurred; the temporal movement of what has happened and what will happen exist simultaneously.

For these reasons, Herman's theory of polychronic narration can only be partially applied to *Tenet*. However, this does not mean that the theory cannot be adjusted to analyse such a temporally complex film appropriately. I have already added to Herman's theory by showing how it can be successfully applied to various temporally complex films. Hence, an extension of Herman's theory will allow for its future

application to various degrees of temporally complexity, even those as temporally deformed as Nolan's *Tenet*.

Figure 16: Tenet's Intricate Temporal Puzzle[192]



[192] Reddit, 2024.

CHAPTER 5: CONCLUSION

Postclassical narratology has evolved to such an extent that a vast amount of mediums have fallen under its purview, thus allowing mediums other than the novel (and other more traditional genres such as drama) to receive scholarly attention. While many newer mediums, such as video games, are fairly new to narratology, film – which has fought for its place in narratology, see Section 3.1.3 and 3.2.1 – has been established in narrative studies, with many scholars devoted to studying its unique storytelling capabilities. Applying narrative theories to film has furthered narratology greatly and developed our understanding of the narratives within. However, due to the fact that these traditional theories of narrative were created with the novel in mind, certain challenges arise when applied to different media, especially those that challenge the limits of narrative. This is especially evident in film, where certain directors utilise the ever-developing techniques of cinema to create narratives that resist traditional narrative analysis.

With this in mind, it is no surprise that Christopher Nolan's films have begun receiving a fair amount of scholarly attention. Christopher Nolan has been shown to be not only a modern-day auteur who reaches new heights in the film industry, but also a literary figure who pushes the boundaries of narrative. Nolan is known for his intricately complex narratives that deform time, giving him the name *puzzle master*. The problem that arises is that certain of Nolan's films seem to resist analysis in terms of traditional temporal theories, i.e. Genette's temporal theory, which was shown to be insufficient when analysing narratives with such a complex temporal structure. Therefore, a more modern theory was seen to be needed, one better suited to analyse these complex instances of temporal deformation: David Herman's theory of polychronic narration.

Herman's theory of polychronic narration directly addresses instances where time is deformed to such an extent that certain events cannot be definitely placed along a timeline, classifying them as indeterminate. Considering the radical nature of time in Nolan's films and the inability of traditional theories to analyse these films appropriately, Herman's theory proved to be the most optimal.

To determine if Nolan's films engaged in polychronic narration, each selected film (*Dunkirk*, *Interstellar*, *Memento,* and *Tenet*) needed to be examined to determine whether it contained indeterminacy and, if so, how and why. These analyses were conducted in a fashion similar to that seen in Herman's own analysis of *The Sweet Hereafter, Der Ausflag*, and *The White Hotel*.

Herman's theory was successfully applied to *Dunkirk* (which was analysed first due to it being the least complex of the four films), classifying it as an inexactly coded, multiply-ordered polychronic narrative. Although Herman's theory was applicable and successfully examined the instances of indeterminacy in *Dunkirk*, the analysis confirmed the speculation that Nolan's films would be more complex than the narratives Herman used to develop his theory. *Dunkirk's* indeterminacy rivals that seen in *The Sweet*

Hereafter, with four brackets containing multiple alternative sequences and five radical indeterminate events. True, *The Sweet Hereafter* is partially ordered as opposed to multiply ordered; however, Herman does not provide a (re)constructed timeline for multiply-ordered or inherently coded narratives, nor does he apply these to film. Nonetheless, it was shown that *Dunkirk* is polychronic and that it is possible to illustrate (and thus effectively analyse) an inexactly coded multiply-ordered narrative, at least to this extent of complexity.

To continue showcasing the successful application of Herman's theory, *Memento* was shown to be an example of an inexactly coded, partially ordered polychronic narrative. In fact, despite the arduous viewing experience, its temporal structure was revealed to be rather simplistic. The use of polychronic narration in *Memento* is, in fact, similar to that of *The Sweet Hereafter*, if not simpler. The film's indeterminacy was only found in Leonard's memories of his wife and possibly in relation to his story of Sammy Jankis. Despite the surprisingly simple deformation of time found in *Memento,* it still stands as an example of polychronic narration found in Nolan's films.

The above films certainly held promise for the applicability of Herman's theory; however, this began to be tested once *Interstellar's* analysis began. The indeterminacy found in *Interstellar* classified it as an inherently coded, multiply-ordered polychronic narrative. Due to time's inherently radical nature in the film, certain events occurred simultaneously despite existing in different temporal frameworks (past and future). Herman found a similar instance of indeterminacy in *The White Hotel*; however, it was shown that the events found in *Interstellar* were far more complex. These events existed along with indefinite events and the kind of radical indeterminate events seen in the previous films. This made it incredibly difficult to document *Interstellar's* events on a (re)constructed timeline, especially since Herman does not provide an equivalent example. It could be argued that Herman does not provide an illustration of this sort of indeterminacy because it cannot be represented in the same way the other films were and because the entire 'way' these events exist is on the basis of effectively rejecting a global reconstruction of a timeline. Although this holds validity, an illustration of the narrative's indeterminacy did aid in the representation and understanding of its polychronic nature. Therefore, additions were made to Herman's method to better represent and understand *Interstellar's* use of polychronic narration. With this in mind, polyphonic narration could be uncovered in *Interstellar*; however, earlier concerns about the applicability of Herman's theory to Christopher Nolan's more complex films were shown to have been true. This is especially relevant to the last analysed film, *Tenet*.

As stated in this study, *Tenet* is Christopher Nolan's most temporally complex film, as the traditional concept of cause and effect is thrown out the window. Time in *Tenet* moves forwards and backwards simultaneously, resulting in future events inhabiting the past. This results in a storyworld where events that still need to occur are occurring and have already occurred. As can be imagined, the applicability of Herman's theory was tested in *Tenet's* analysis. The film could be identified as an inherently coded, multiply-ordered polychronic narrative. However, its polychronic nature does not lie in certain events' temporal placement being

indeterminate; rather, any form of order is impossible in certain cases. It is not that an event's temporal placement is unknown relative to others; instead, it exists simultaneously in the present, past and future. This form of indeterminacy is not addressed by Herman, thus causing his theory's applicability in *Tenet* to be limited at best. Nonetheless, Herman's theory is still the most sufficient for analysing *Tenet's* temporal deformation. Unfortunately, however, a full illustration of *Tenet's* polychronic nature is out of reach as the theory stands. However, upon further development of Hermans's theory, such an illustration may be possible, thus allowing for a better understanding of *Tenet's* polychronic structure.

Considering the above, the first aim of this study was addressed: establishing whether Herman's theory of polychronic narration is useful for the analysis of Christopher Nolan films. It can be confidently stated that Herman's theory is exceptionally useful when analysing the temporally complex structure of Nolan's films. Through the thorough investigation of Nolan's films, it is clear that Genette's temporal theory can only be applied to a limited degree. With regard to *Dunkirk* and *Memento*, it can be seen how Herman and Genette are able to work together, with Genette's theory explaining traditional instances of analepsis and prolepsis and Herman's theory' explaining instances of indeterminacy. However, with respect to Nolan's more complex films, such as *Interstellar*, one begins to see the real importance of Herman's theory as it allows one to properly define and describe indeterminate events. Although Herman's theory is useful for the analysis of Nolan's films, its limitations were also revealed in the analysis of *Interstellar* and especially in *Tenet*. Nonetheless, through Herman's theory, a better understanding of the importance of indeterminate events was developed. This is because, as opposed to Genette, Herman argues that these 'unplaceable' events serve an important role in expressing the narrative's themes, messages, philosophies, etc. Herman's theory is vital in understanding how these indeterminate events are used to emphasise Nolan's vision and develop his storyworlds.

This leads to meeting the second aim of this study: establishing exactly how Christopher Nolan's films structure time, and in particular, how they incorporate and make use of polychronic narration. It was seen that Nolan utilised polychrony differently in each film; every time to achieve a different goal. In *Dunkirk*, time was structured in such a way that it represented three perspectives, each representing an important part of the evacuation. Polychronic narration was used to create a fractured timeline across these three perspectives, causing a viewer to question the temporal placement of certain events and the true cause(s) of the evacuation. Nolan used polychronic narration to emphasise the anti-linear properties of war (how such tragic events almost seem random, unexplainable and at times disconnected) and to showcase how miraculous the evacuation truly was.

For *Memento,* time was structured like an unsolvable puzzle. This was created so that the audience could experience the world through Leonard's experience of time. Nolan utilised polychronic narration to emphasise the fragility of memory, human grief, tragedy and the endless search for meaning. Time in *Interstellar* brings attention to Einsteins theory of relativity. Therefore, time in *Interstellar* is structured in

such a way that one hour on Miller's planet is equivalent to seven years on Earth. Polychronic narration is utilised to question our understanding of time and human connection, arguing that, like time, humans do not possess a complete understanding of human connection, a connection that transcends time and space. Similarly, *Tenet* questions our understanding of cause and effect, of before and after. Time is structured to allow for events to exist simultaneously, for effect to exist alongside its cause; and before the cause has even occurred. The theory of polychronic narration has its limits, especially in relation to *Tenet*. However, its presence in the film cannot be ignored.

It is undeniable that Herman's theory of polychronic narration is invaluable in the analysis of Christopher Nolan. Nolan is a master of time manipulation and thus requires a theory that explains his use of time and the effect it has on the narrative. With Herman's theory, we are able to identify and define instances of indeterminacy and showcase how Nolan utilises them to dive into the mysteries of time and the human psyche. Unfortunately, Nolan proves why he is the master of time's manipulation, as even Herman's theory could not fully 'examine' the levels of indeterminacy found in Nolan's films *Interstellar* and *Tenet*. In the case of *Interstellar*, additions were made to understand better and examine radical indeterminate events that could not be represented through a simple application of Herman's method. This allowed this study to make minor improvements on Herman's theory and act as a means to better understand Herman's theory and polychronic narration in Nolan's films

Despite not being able to fully analyse indeterminacy in certain Nolan films, it cannot be debated that through polychronic narration, Nolan is able to evolve his characters and storyworld, and it is only through the theory of polychronic narration that we will be able to (partially) comprehend Nolan's work. Further work on Nolan's and similar directors' films will help develop Herman's basic intuitions further.

BIBLIOGRAPHY

Abbott, H.P. 2002. *The Cambridge Introduction to Narrative*. Cambridge: Cambridge University Press.

Altman, R. 2008. *A Theory of Narrative.* New York: Columbia University Press.

Aristotle. 1922. *The Poetics of Aristotle*, edited by S.H. Butcher. London: Macmillan Publishers.

Ashton, D. 2006. *Using Deleuze: The Cinema Books, Film Studies And Effect.* Ohio: College of Bowling Green State University. (Thesis – PhD).

Atkins, K. 2023. Paul Ricoeur. In: *Internet Encyclopedia of Philosophy*. https://iep.utm.edu/ricoeur/#H7 Date of access: 24 May. 2023.

Bilis, H.E., Blanchard, J.V., Harrison, D. & Visentin, H. 2022. La Princesse de Clèves by Lafayette. *Lever Press,* https://doi.org/10.3998/mpub.12629286

Braudy, L. & Cohen, M. 2009. *Film Theory and Criticism.* New York: Oxford University Press.

Brazin, A.1950. What is Cinema: The Evolution of the Language of Cinema. In Braudy, L. & Cohen, M., eds. *Film Theory and Criticism.* New York: Oxford University Press. pp. 41-53.

Bridgeman, T. 2007. Time and Space. In: Herman, D., eds. *The Cambridge Companion to Narrative*. Cambridge: Cambridge University Press.

Brislin, T. 2016. Time, Ethics, and the Films of Christopher Nolan. *Visual Communication Quarterly,* 23(4):199-209.

Britannica. 2023. *Film Noir*. https://www.britannica.com/art/film-noir Date of access: 20 Nov. 2023.

Britannica. 2024. *Auteur Theory*. https://www.britannica.com/art/auteur-theory Date of access: 22 Jan. 2024.

Brittain, A. 2024. Me Too Movement. https://www.britannica.com/topic/Me-Too-movement Date of access: 7 March. 2024.

Brooker, W. 2015. Forward: Are You Watching. In: Furby. J. & Joy, S. *The Cinema of Christopher Nolan: Imagining the Impossible*. New York: Columbia University Press.

Carmen (@jasonjoyride). 2024, 5 Jan. *Alright Fine, Here are my 29 Slides Explaining Tenet* [Tweet]. https://x.com/jasonjoyride/status/1743316835972546580 Date of Access: 10 Sep. 2024.

Cartwright, M. 2024. *Dunkirk Evacuation*. https://www.worldhistory.org/Dunkirk_Evacuation/ Date of access: 3 July. 2024.

Chatman, S. 1978. *Story and Discourse: Narrative Structure in Fiction and Film*. Ithaca: Cornell Up.

Coe, M. 2001. New Market Capital Group. https://independent-magazine.org/2001/04/01/newmarket-capital-group/ Date of access: 16 Feb. 2024.

Commonwealth War Graves Commission. 2023. *The Evacuation of Dunkirk – The True Story Behind the Film. https://www.cwgc.org/our-work/blog/the-evacuation-of-dunkirk-the-true-story-behind-the-film/* Date of access: 5 Sep. 2024.

Cook, D.A. & Sklar, R. 2024. *Edwin S. Porter*. https://www.britannica.com/art/motion-picture/Qualities-of-the-film-image Date of access: 20 Feb. 2024.

Cool, D.A. & Sklar, R. 2024. *History of Film*. https://www.britannica.com/art/history-of-the-motion-picture/Melies-and-Porter Date of access: 20 Feb. 2024.

Culler, J. 1983. Forward. In: Genette G. *Narrative Discourse: An Essay in Method.* Columbia: Cornell University Press.

Cunci, A. 2023. *What is Anterograde Amnesia*. https://www.sciencedirect.com/topics/pharmacology-toxicology-and-pharmaceutical-science/anterograde-amnesia Date of access: 1 Sep. 2024.

Currie, M. 2007. *About Time: Narrative, Fiction, and the Philosophy of Time*. Edinburgh: Edinburgh University Press.

De Villiers, G. 2005. *Understanding Gilgamesh: His World and His Story.* Pretoria: University of Pretoria. (Thesis – PhD).

Deakin, P. 2015. Men in Crisis: Christopher Nolan, Un-truths and Fictionalising Masculinity. In Furby, J. & Joy, S., eds. *The Cinema of Christopher Nolan: Imagining the Impossible.* New York: Columbia University Press. pp. 85-99.

Deleuze, G. 1986. *Cinema 1: The Movement-Image.* Minneapolis: University of Minnesota Press.

Deleuze, G. 1989. *Cinema 2: The Time-Image.* Minneapolis: University of Minnesota Press.

Doane, M.A. 1991. *Femmes Fatales: Feminism, Film Theory, Psychoanalysis.* New York: Routledge.

Dolezel, L. 1990. *Occidental Poetics: Traditional and Progress.* Nebraska: University of Nebraska Press.

Eberl, J.T & Dunn, G.A. 2017. *The Philosophy of Christopher Nolan.* Maryland: Lexington Books.

Egoyan, A. 1997. *The Sweet Hereafter.* Produced by Ego Film Arts. Montreal: Alliance Communications [DVD].

Eilley. S. 2022. *The Arrow of Time*. https://live.stemfellowship.org/the-arrow-of-time/ Date of access: 11 Sep. 2024.

Encyclopaedia Britannica. 2019. *Le Cid*. Le Cid | Classical French Tragedy, 17th-Century Play | Britannica Date of access: 12 March. 2024.

Film Independent. 2023. Spirit Awards. https://www.filmindependent.org/spirit-awards/about/ Date of access: 19 Nov. 2023.

Fisher, S. 2022. *What is IMDb: The Internet Movie Database Explained.* https://www.lifewire.com/internet-movie-database-3482288 Date of access: 10 Sep. 2024.

Flanagan, M. 2009. *Bakhtin and the Movies: New Ways of Understanding Hollywood Film*. Hampshire: Palgrave Macmillan.

Fludernik, M. 2005. Histories of Narrative Theory (II): From Structuralism to the Present. In: Phelan, J & Rabinowitz., eds. A Companion to Narrative Theory. Oxford: Blackwell Publishing. pp. 36-51.

Furby & Joy 2015. *The Cinema of Christopher Nolan: Imagining the Impossible*. New York: Columbia University Press.

Gaudreault, A. 1998. *Du Littéraire au filmique: System du récit*. Paris: Meridiens Klincksieck.

Gaudreult, A, & Jost, F. 2004. Enunciation and Narration. In: Miller, T. & Stam, R., eds. *A Companion to Film Theory.* Oxford: Blackwell Publishing.

Genette, G. [1972] 1980. *Narrative Discourse. An Essay on Method*. Ithaca: Cornell University Press.

Genette, G. 1982. *Figures of Literary Discourse*. New York: Columbia University Press.

Goh, R.B.H. 2022. *Christopher Nolan: Filmmaker and Philosopher.* London: Bloomsbury Publishing.

Gunning, T. 1991. D.W. Griffith and the Origins of American Narrative Film. In: Braudy, L. & Cohen, M., eds. *Film Theory and Criticism.* New York: Oxford University Press. pp. 390-401.

Harrison, K. 2017. *Shakespeare, Bakhtin and Film: A Dialogic Lens*. Charn: Palgrave Macmillan.

Heavy Spoilers. 2021. *Tenet Explained* [YouTube]. https://www.youtube.com/watch?v=FWm-RDRQxSM&ab_channel=HeavySpoilers Date of access: 10 Sep. 2024.

Henderson, B. 1983. Tense, Mood, and Voice in Film. *Film Quarterly,* 36(4). doi.org/10.2307/3697090

Herman, D. 2003. *Narrative Theory and The Cognitive Sciences.* California: CSLI Publications.

Herman, D. 2004. Story Logic: *Problems and Possibilities of Narrative*. London: University of Nebraska Press.

Herman, D. 2005. Histories of Narrative Theory (I): A Genealogy of Early Developments. In: Phelan, J & Rabinowitz., eds. *A Companion to Narrative Theory*. Oxford: Blackwell Publishing. pp. 19-33.

Herman, D. 2006. Cognitive Poetics: An Introduction. *Language,* 82(3): 696.

Herman, D. 2011. *The Emergence of Mind: Representations of Consciousness in Narrative Discourse in English.* Lincoln: University of Nebraska Press.

Herman, D. 2017. *Storytelling and The Sciences of Mind.* Massachusetts: MIT Press.

Herman, D., Jahn, M. & Ryan, M.L. 2005. *Routledge Encyclopaedia of Narrative Theory.* London: Routledge.

Hoffman, D. 2024. *Russian oligarchs*. https://www.britannica.com/topic/Russian-oligarchs Date of access: 16 Sep. 2024.

Hühn, P., Schmid, J.P.W. & Schönert, J. 2009. *The Handbook of Narratology*. Berlin: Walter de Gruyter.

IMDB. 2024. Dunkirk. https://www.imdb.com/title/tt5013056/ Date of access: 7 Sep. 2024.

Jahn, M. 2007. Focalization. In: Herman, D., eds. *The Cambridge Companion to Narrative.* Cambridge: Cambridge University Press.

Janisi, R. 2013. *How does film tell a story? A narratological film analysis of Enter the Void*. Austria: University of Graz. (Thesis – Master's).

Jones, D.M & Brown, W. 2012. *Deleuze and Film.* Edinburgh: Edinburgh University Press.

Joy, S. 2015. Introduction: Dreaming a Little Bigger, Darling. In Furby, J. & Joy, S., eds. *The Cinema of Christopher Nolan: Imagining the Impossible.* New York: Columbia University Press. pp. 1-17

Joy, S. 2020. *The Traumatic Screen: The Films of Christopher Nolan*. Chicago: Intellect.

Kracauer, S.1960. *Basic concepts*. In: Braudy, L. & Cohen, M., eds. *Film Theory and Criticism: Introductory Readings*. New York: Oxford University Press.

Kraus, G.L. 2014. *The Exacting, Expansive Mind of Christopher Nolan.* https://www.nytimes.com/2014/11/02/magazine/the-exacting-expansive-mind-of-christopher-nolan.html Date of access: 20 Nov. 2023.

Lämmert, E. 1955. *Bauformen des Erzählens*. Stuttgart: Metzler.

Lande, J.A.G. 2005. *Narrative Theory*. Available from University of Zaragoza: https://personal.unizar.es/garciala/publicaciones/narrativetheory/0.Introduction.htm Date of access: 15 May. 2024.

Lewis, D. 1970. General Semantics. *Synthese*, 22(1–2). doi:10.1007/BF00413598

Library of Congress. 2024. *Early Motion Picture Productions*. https://www.loc.gov/collections/edison-company-motion-pictures-and-sound-recordings/articles-and-essays/history-of-edison-motion-pictures/early-motion-picture-productions/ Date of access: 20 Feb. 2024.

Liman, D. 2014. *The Edge of Tomorrow*. Produced by Warner Brothers. California: Warner Brothers Pictures. [DVD]

Lin, C. 2024. *Tenet Movie Timeline*. https://www.behance.net/gallery/32530457/InfographicTenet-Movie-Timeline?locale=pt_BR Date of access: 25 Nov. 2024.

Lothe, J. 2002. *Narrative in Fiction and Film: An Introduction*. Oxford: Oxford University Press.

Luzecky, R.W., & Smith, D.W. 2023. *Deleuze and Time.* Edinburgh: Edinburgh University Press.

Malpas, S. & Wake, P. 2006. *The Routledge Companion to Critical Theory*. New York: Routledge.

Mambrol, N. 2016. *Gerard Genette and Structural Narratology.* https://literariness.org/2016/12/03/gerard-genette-and-structural-narratology/ Date of access: 28 April. 2023.

Manley, B. 2011. *Moving Pictures: The History of Early Cinema*. chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://www.lkouniv.ac.in/site/writereaddata/siteContent/202004260643328777nishi_films.pdf Date of access: 10 Jan. 2024.

McGowan, T. 2012. *The Fictional Christopher Nolan.* Texas: University of Texas Press.

McTiernan, J. 1988. *Die Hard*. Produced by Gordon Company and Joel Silver. Los Angeles. 20th Century Fox. [DVD].

Meister, J.C. 2009. Narratology In: Hühn, P, F. & Pier, J., eds. *The Handbook of Narratology*. New York: Walter de Gruyter.

Merriam-Webster Inc. 2024. *Hypocentre*. https://www.merriam-webster.com/dictionary/hypocenter Date of access: 23 October. 2024.

Merriam-Webster Inc. 2024. *Merriam-Webster dictionary.* https://www.merriam-webster.com/dictionary/entropy Date of access: 11 Sep. 2024.

Merriam-Webster Inc. 2024. *Merriam-Webster dictionary*. https://www.merriam-webster.com/wordplay/the-history-of-the-word-poet#:~:text='Poet'%20comes%20from%20a%20Greek,he%20gathers%2C%20heaps%20up.%22 Date of access: 26 March. 2024.

Metz, C. 1971. *Language et cinema*. Paris: Larousse.

Miller, J.E. 1972. *Theory of Fiction: Henry James*. Lincoln: University of Nebraska Press.

Misiroglu, G. & Eury, M. 2025. *Batman*. https://www.britannica.com/topic/Batman-fictional-character Date of access: 20 April. 2025.

Mojo. 2023. *Interstellar*. https://www.boxofficemojo.com/title/tt0816692/ Date of access: 18 Nov. 2023.

Mooney, D. 2018. Christopher Nolan: A Critical Study of the Films. Carolina: McFarland & Company.

Müller, G. 1948. *Erzählte Zeit und Erzählzeit*. Mohr: *Tübingen*.

Nathan, I. 2022. *Christopher Nolan: The Iconic Filmmaker and His Films.* London: White Lion Publishing.

National Art Gallery. 2024. *Francisco Goya.* https://www.nga.gov/collection/artist-info.1353.html Date of access: 16 Sep. 2024.

Nolan, C. 1989. *Tarantella*. Christopher Nolan. [DVD].

Nolan, C. 1997. *Doodlebug.* Produced by Christopher Nolan and Emma Thomas. Toronto: Alliance Atlantis. [DVD].

Nolan, C. 1998. *Following*. Produced by Next Wave Films. Toronto: Momentum Pictures. [DVD].

Nolan, C. 2000. *Memento*. Produced by Summit Entertainment and Team Todd. Los Angeles: Summit Entertainment. [DVD].

Nolan, C. 2002. *Insomnia*. Produced by Alcon Entertainment. California: Warner Brothers Pictures. [DVD]

Nolan, C. 2005. *Batman Begins*. Warner Brothers Pictures, Legendary Pictures, and Syncopy. California: Warner Brothers Pictures. [DVD].

Nolan, C. 2008. *The Dark Knight*. Produced by Warner Brothers and FilmFlex. California: Warner Brothers Pictures. [DVD].

Nolan, C. 2010. *Inception*. Produced by Warner Brothers, Legendary Pictures & Syncopy. California: Warner Brothers Pictures. [DVD].

Nolan, C. 2012. *The Dark Knight Rises.* Produced by Warner Brothers, Legendary Pictures, DC Entertainment and Syncopy. California: Warner Brothers Pictures. [DVD].

Nolan, C. 2014. *Interstellar.* Produced by Legendary Pictures, Syncopy Inc. and Lynda Obst Productions. Los Angeles: Paramount Pictures. [DVD].

Nolan, C. 2017. *Dunkirk.* Produced by Warner Brothers, Syncopy Inc. and RatPac-Dune Entertainment. California: Warner Brother Pictures. [DVD].

Nolan, C. 2020. *Tenet.* Produced by Warner Brothers and Syncopy Inc. California: Warner Brothers Pictures. [DVD].

Nolan, C. 2023. *Oppenheimer.* Produced by Syncopy Inc. and Atlas Entertainment. California: Universal Pictures. [DVD].

O'Sullivan, K. 2017. Bye Cassini: NASA's Saturn Probe sends its final transmission. *Irish Times*, 15 June. https://www.irishtimes.com/news/science/space/bye-cassini-nasa-s-saturn-probe-sends-its-final-transmission-1.3222169 Date of access: 11 August. 2024.

Olson, J. 2015. Nolan's Immersive Allegories of Filmmaking in *Inception* and *The Prestige*. In Furby, J. & Joy, S., eds. *The Cinema of Christopher Nolan: Imagining the Impossible.* New York: Columbia University Press. pp. 44-62.

OneTake. 2022. *Tenet Explained: All Time Inversion Scenes Explained* [YouTube]. https://www.youtube.com/watch?v=64wxTcTUEUA&t=284s&ab_channel=OneTake Date of access: 10 Sep. 2024.

Oxford University Press. *Poetics*. https://www.oxfordreference.com/display/10.1093/oi/authority.20110913122803559#:~:text=%5Bpoh%2Det%2Diks%5D,genres%2C%20and%20modes%20of%20composition. Date of access: 13 May. 2024

Parks, E.H. 2015. Developing an Auteur Reviews: The Critical Surround of Christopher Nolan. In Furby, J. & Joy, S., eds. *The Cinema of Christopher Nolan: Imagining the Impossible.* New York: Columbia University Press. pp. 17-31.

Parks, C. & Labrouillere. 2023. *A Critical Companion to Christopher Nolan*. Lanham: Lexington Books.

Phelan, J. & Rabinowitz, P.J. 2005. *A Companion to Narrative Theory*. Oxford: Blackwell Publishing.

Prince, G. 2003. *A Dictionary of Narratology*. Lincoln: University of Nebraska Press.

Puckett, K. 2016. *Narrative Theory: A Critical Introduction*. Berkeley: Cambridge University Press.

Raitz, L. 2022. Where to start Marcel Proust. *The Guardian*. Issue 1. https://www.theguardian.com/books/2022/nov/18/where-to-start-with-marcel-proust-french-writer Date of access: 14 May. 2024.

Reddit, 2024. *Tenet Character Timeline*. https://www.reddit.com/r/tenet/comments/iixw59/tenet_character_timeline/?rdt=47440 Date of access: 25 Nov.2024

Ricoeur, P. 1984-88. *Time and Narrative*. Chicago: University of Chicago Press.

Rockhill, G. 2023. The Myth of 1968 Thought and the French Intelligentsia: Historical Commodity Fetishism and Ideological Rollback. *Monthly Review*, Issue 75. https://monthlyreview.org/2023/06/01/the-myth-of-1968-thought-and-the-french-intelligentsia-historical-commodity-fetishism-and-ideological-rollback/ Date of access: 12 March. 2024.

Ryan, M.L. 2007. Towards a Definition of Narrative. In Herman, D., eds. *The Cambridge Companion to Narrative*. Cambridge: Cambridge University Press.

Ryan, M.L. & Thon, J.N. 2014. *Storyworld Across Media: Towards a Media-Conscious Narratology.* Lincoln: University of Nebraska Press.

Ryan, M.L. & Thon, J.N. 2014. Storyworlds Across Media: Introduction In: Ryan, M.L. & Thon, J.M, eds. *Storyworlds Across Media*. Lincoln: University of Nebraska Press.

Sarris, A. 1962. Notes on the Auteur Theory. In Braudy, L. & Cohen, M., eds. *Film Theory and Criticism.* New York: Oxford University Press. pp. 451-454.

Scheffel, M., Weixler, A. & Werner, L. 2013. Time In: Hühn, P, F. & Pier, J., eds. *The Handbook of Narratology*. New York: Walter de Gruyter.

Scott, R. 1982. *Blade Runner*. Produced by The Ladd Company and Shaw Brothers. California: Warner Brothers Pictures. [DVD].

SFGATE. 2023. About SEFGATE. https://www.sfgate.com/ Date of access: 8 Nov. 2023.

Shelton, S. 2024. Zimmer, Hans. In Encyclopedia.com. https://www.encyclopedia.com/people/literature-and-arts/film-and-television-biographies/hans-zimmer Date of access. 12 Feb. 2024.

Shone, T. 2020. *The Nolan Variations: The Movies, Mysteries, and Marvels of Christopher Nolan.* New York: Alfred A. Knopf.

Smith, N. 2017. Dunkirk: Sound and storytelling. *The Cornell Daily Sun,* 18 August. https://cornellsun.com/2017/08/18/dunkirk-sound-and-storytelling/ Date of access: 4 July. 2024.

Stack Exchange, 2023. *What Would an Observer See When Someone Goes Through the Turnstile in Tenet.* https://movies.stackexchange.com/questions/110963/what-would-an-observer-see-when-someone-goes-through-the-turnstile-in-tenet Date of access: 25 Nov. 2024.

Tarantino, Q. 1994. *Pulp Fiction*. Produced by A Band Apart and Jersey Films. Los Angeles: Miramax Films. [DVD].

Taylor, T. 2015. Saints, Sinners and Terrorists: The Women of Christopher Nolan's Gotham. In Furby, J. & Joy, S., eds. *The Cinema of Christopher Nolan: Imagining the Impossible.* New York: Columbia University Press. pp. 62-74.

The National Gallery. *Francisco de Goya*. https://www.nationalgallery.org.uk/artists/francisco-de-goya Date of access: 14 Oct. 2024

Thon, A.N. 2015. *Transmedial Narratology and Contemporary Media Culture*. Lincoln: University of Nebraska Press.

Todorov, T. 1969. *Grammaire du Décméron.* The Hague: Mouton.

Toth, M.A. 2015. *Memento's* Postmodern *Noir* Fantasy: Place, Domesticity and Gender Identity. In Furby, J. & Joy, S., eds. *The Cinema of Christopher Nolan: Imagining the Impossible.* New York: Columbia University Press. pp. 74-85.

Vaughan, D. 2023. *The Great Train Robbery*. https://www.britannica.com/topic/The-Great-Train-Robbery-film-by-Porter Date of access: 20 Feb. 2024.

Whitney, A. 2015. Cinephilia Writ Large: IMAX in Christopher Nolan's *The Dark Knight* and *The Dark Knight Rises*. In Furby, J. & Joy, S., eds. *The Cinema of Christopher Nolan: Imagining the Impossible.* New York: Columbia University Press. pp. 31-44.

Wolf, W. & Bernhart, W. 2017. *Selected Essays on Intermediality: Theory and Typology, Literature-Music Relations, Transmedial Narratology, Miscellaneous Transmedial Phenomena.* Boston: Brill.

Wolf, W. 2004. Cross the Border – Close that Gap: Towards an Intermedial Narratology. *EJES: European Journal of English Studies,* 8(1):81-103.

Zhu, X. 2020. On the Evolution of Film Narrative Time. *Frontiers in Art Research,* 2(9). 10.25236/FAR.2020.020905