Viewing and Viewing Again:
Film narrative and the time-travelling spectator

by Leiya Ho-Yin Lee

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Abstract

Having had a time-travel-like experience of witnessing an audience response at a Disney 4D screen performance in 2010 that mirrored that at the fabled screening of *L'Arrivée d'un train en gare de la Ciotat* in 1895, this thesis argues that there is an inherent quality of time-travel in cinema. This thesis investigates if Film Studies and concepts of time travel can inform one another to create new ideas on film spectatorship. The natural place to start is to study films that feature time-travel narratives. Time travel in films has three key characteristics, each of which is tackled by individual chapters: (1) complicated narrative structures; (2) an aesthetic of repeats; and (3) adherence to a strict cause-and-effect logic. First, this thesis studies narrative structures developing on David Bordwell’s cognitivist work, and, combining with ideas from analytic philosopher Jack W Meiland, continental philosopher Henri Bergson and mathematician Hermann Minkowski, this thesis presents graphical representations of time travel and film narration. Next, the thesis deals with the idea of visits and repeats, where the Freudian concept of nachträglichkeit (“deferred action”) is useful in trying to understand ‘repeating’ cinematic experiences, such as the knowledge of ‘twist’ endings (à la *The Usual Suspects*) during repeated viewings. The fact that this thesis uses a psychoanalytic concept to complement a Post-Theory cognitive approach is an attempt to reconcile the dichotomy between the two often antagonistic paradigms. Finally, two opposing systems of thinking, of cause-and-effect and of chance, are pitted against one another; it is then argued that cinema is where these two incompatible logics coexist harmoniously, making cinema a *time machine* and the spectator a *time traveller*.
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"Yesterday is history. Tomorrow is a mystery. But today is a gift. That is why it is called the present."¹

"There are no accidents."
Master Oogway
*Kung Fu Panda* (2008)

Master Oogway is wise. Perhaps it was *no accident* that I visited the Hong Kong Disneyland one day in 2010. Perhaps it was *no accident* that I went inside one of the attractions there, *Mickey's PhilharMagic*. Perhaps it was *no accident* that I travelled back in time there. And perhaps it was *no accident* that this experience sparked the beginning of this thesis investigating the relationship between cinema and time travel. All of this will be discussed in Chapter 1. But first, I feel that I am obligated to do a bit of housekeeping, with the weirdest of starting points: Master Oogway's wise words.

The seemingly logical but illogical

Master Oogway is a character from the *Kung Fu Panda* series²; and that is where we begin. *Kung Fu Panda* (Mark Osborne and John Stevenson, 2008) may not be the first film that comes to anyone's mind when thinking about cinema, time travel, or cinema-as-time-machine. Hailed as "the most ambitious film to date from DreamWorks Animation"

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¹ This is by no means an original proverb written for *Kung Fu Panda*, despite being popularised by it. It is believed that this adage originates from a quote in Alice Morse Earle's 1902 book *Sun Dials and Roses of Yesterday*, which reads: "The clock is running. Make the most of today. Time waits for no man. Yesterday is history. Tomorrow is a mystery. Today is a gift. That's why it is called the present." Oogway should be spelt *wugui* in standard Mandarin *pinyin* (phonetic transcription). However the film series has gone with a more Anglicised spelling, which I have adopted here.

² At the time of writing, the series consists of Kung Fu Panda (Mark Osborne and John Stevenson, 2008), *Kung Fu Panda 2* (Jennifer Yuh Nelson, 2011), and *Kung Fu Panda 3* (Alessandro Carloni, Jennifer Yuh Nelson, 2016)
(Hare, 2008, p62), *Kung Fu Panda* is an impressively CG-animated film set in a whimsical rendition of ancient China of an unspecified historical period, where inhabitants, including wise Master Oogway, are all anthropomorphic animals talking in English with various accents from the international cast. The style as well as the plot of the film is also a jumble of reflections on and nods to other films and film cultures. The film is a marriage between traditional *kung fu* action genre descended from Chinese, mostly Hong Kong, cinemas and one of the most modern of genres, the CGI animation that was kickstarted by *Toy Story* (1995), made by Pixar Animation Studio right at the centenary of the birth of cinema, *as if by cosmic coincidence*. The un realised talent and 'underdog' nature of the protagonist giant panda, Po (voiced by Jack Black) clearly harks back to such popular classic ‘*kung fu* films’ as *The 36th Chamber of Shaolin* (1978) and *Drunken Master* (1978). In her review for *Sight & Sound*, Jane Lamacraft has likened Master Oogway (voiced by Randall Duk Kim) to Yoda and Obi-Wan from the *Star Wars* franchise, the sequences where characters run up walls and on roofs to those of *Crouching Tiger, Hidden Dragon* (2001), and also the “Moria-like” underground prison, in which the antagonist snow leopard Tai Lung (voiced by Ian McShane) is held, to *The Lord of the Rings* (Lamacraft, 2008, p68). From its historically and geographically ambiguous setting, the inexplicably anthropomorphic animals who should not be sharing the same habitat in reality, to all the different English accents from across the globe and the generic multiplicity, *Kung Fu Panda* is evidently a spatial ‘jumble’ that perhaps typifies a lot of the films coming out of Hollywood today. However, rather than the spatial confusion of *Kung Fu Panda*, it is its temporal confusion that will bring us to a convenient point of convergence for the ideas that are going to be discussed on the following pages. In fact, some key moments of the film, as well as the premise of its overall narrative, reveal just such temporal confusion.

Not that a film needs to have a definitive *interpretation* (lest one wants to work at what Noël Carroll calls “Interpretation Inc.” (1996a, p44)\(^3\), or any particular moral wisdom to be grasped by the spectator, but if there ever were such things in *Kung Fu Panda*, and also its sequel for that matter (and there *definitely* are in this particular case), one of them could be found in one key scene near the beginning of the film. After being accidentally chosen in a ceremony as the fated Dragon Warrior to protect the Valley of Peace from the return of the vicious antagonist Tai Lung seeking revenge, our comically clumsy protagonist Po is demoralised by the fact that he does not know any kung fu and is thus rejected by

\(^3\) A brand of Film Studies which, rather than taking film as *is*, takes interpretations of such things as "symbolic meaning" too seriously.
everyone in the Jade Palace, where Po initially expects to learn kung fu and to finally realise his lifelong dream of becoming a master. Master Oogway, the grand master at Jade Palace, who has been insisting that "there are no accidents" ever since Po was accidentally chosen, talks to Po and offers him comfort and encouragement. He tells Po, "Yesterday is history. Tomorrow is a mystery. But today is a gift. That is why it is called the present."

These words are meant to be encouraging, by telling Po despite not having any prior knowledge or basic skills in kung fu, that is all in the past; the present is where it matters — Po can still chase his dreams and become the Dragon Warrior. These words also illustrate a clear philosophical stance on the nature of time. This stance is what I would call an ‘open approach’. An ‘open approach’ represents systems of philosophies on time, including possibilism and presentism, both of which believe that the future, to use a romantic time travel story cliché (which is also used by Doc Brown at the very last scene of Back to the Future Part III (Robert Zemeckis, 1990)) “has not been written yet”. This ‘open approach’ is opposite to the ‘closed approach’, otherwise known as determinism⁴, which believes in a strictly linear timeline with a singular and fixed future that, while usually unknowable, is inevitable. The ‘open approach’ is not only interpreted by Master Oogway's words of encouragement to Po, it is then reintroduced more subtly towards the end when Po has an epiphany that “there is no secret ingredient” to the delicious noodle soup made by Mr Ping, Po’s father/stepfather, who has been lying about its faked existence to fool everybody into thinking the soup is special. Po’s epiphany leads him to understand why the Dragon Scroll, the mystical kung fu manual which allegedly holds the secret to limitless power and is the object for which the protagonist and the antagonist battle against each other in the film's final climactic fight scene, is blank. The fact that the secret manual to limitless power is blank is effectively an extension of Oogway's earlier words of encouragement, which imply that the only thing one has control with is the present and hence one should enjoy it like a 'present' and should not worry about the future.

However, this is where the confusion lies. The premise of the film is based on a prophecy, made by none other than Oogway himself, from whom we have just learnt that

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⁴ Deterministic ideas can often be considered as part of Calvinism (on its doctrine of predestination). However, since Calvinism is derived from a deeply religious background in Christianity, in particular, Protestantism, and this project only wishes to dwell on philosophical discussions in relation to the nature of cinema, “determinism” and “closed approach” are terms that are preferred.
“tomorrow is a mystery”! For someone who can make prophecies (accurate ones too) to say to mere mortals who do not possess prophetic powers, like our protagonist, Po, that “tomorrow is a mystery” is truly contradictory, if not complacent. The prophecy states that Tai Lung, the vicious criminal securely kept in a prison who was an innocent student at the Jade Palace turned evil, would escape from prison and return to terrorise the Valley of Peace and attempt to take the Dragon Scroll by force. Once Oogway tells this prophecy to his protege Master Shifu⁵ (a red panda, voiced by Dustin Hoffman), Shifu is quick to send Zeng (voiced by Dan Fogler), the messenger goose, to order stricter security in the prison to ensure that Tai Lung does not escape. However, Oogway insists that nothing Shifu does can stop Tai Lung’s escape; it has to happen. Tai Lung indeed does escape from prison. In this particular case, then, tomorrow is not a mystery. It is a known fact for a prophet like Oogway. This is an entirely different stance on temporality than the previous one: this is the ‘closed approached’ to time, a deterministic view that sees future events have been predetermined and cannot be changed, no matter how hard one tries. These two instances where Oogway reveals his understanding of temporality are inconsistent and certainly leave one confused. One is an ‘open approach’ while the other is a ‘closed’ one, deeply deterministic. So which one is it? Furthermore, in a twisted turn of events, it is precisely Zeng’s visit to the prison that sets off a series of events that leads to Tai Lung’s eventual escape. One of Zeng’s feathers falls and drops, unnoticed, to within the heavily chained prisoner’s reach. As it turns out, one feather is all Tai Lung needs to unlock all the padlocks that have been chaining him, and hence escape the fortified prison. Zeng’s feather would not have acted as Tai Lung’s key to unlock his chains if Shifu had not told him to pay the prison a visit. Shifu would not have ordered Zeng to pay the prison a visit had he not heard about Oogway’s prophecy. Therefore, Oogway’s prophecy would not have come true had he stayed quiet about it. Oogway has created a self-fulfilling prophecy; he had an open future, but he chooses to close it.

Self-fulfilling prophecy also plays an integral role in the second instalment of the series, Kung Fu Panda 2 (Jennifer Yuh Nelson, 2011), which follows a similar pattern, in its confusing stance on temporality, to the first film. It has an equally uplifting message spoken to Po — “Your story may not have such a happy beginning, but that doesn’t make you who you are. It is the rest of your story — who you choose to be.” — by yet another

⁵ “Shifu” literally means master, which makes his name a playful tautology. This is also one of the subtle nods to the traditional kung-fu genre where the protagonist - a learner, a student - always politely addresses his master/teacher as “shifu”.
prophet, a goat soothsayer (voiced by Michelle Yeoh), who has foretold Lord Shen the peacock (voiced by Gary Oldman), the would-be villain of this instalment, that a panda would one day come to him and defeat him. As a preemptive measure, Shen orders the massacre of all panda kind, leaving Po as an orphan. Shen is then banished because of his atrocity, which in turn seeds the desire for revenge within him that sets off a series of battles that end in Po defeating him. Again, it has been the prophecy that sets off the chain of events that could have been prevented by not speaking the prophecy. Prophecies, especially self-fulfilling ones, which dictate that the prophesied must happen, are complete contradictions to the otherwise optimistic ‘open’ approach to temporality that the two films seemingly take, as demonstrated by Oogway’s “tomorrow is a mystery” and the soothsayer’s insistence on “the rest of your story”.

However, one would normally not notice such glaring inconsistency when viewing these two films. Furthermore, smaller narrative inconsistencies would also go unnoticed. For instance, in the first instalment, the two parallel plot lines — one in which Po learns kung fu from Master Shifu, and another one in which Tai Lung charges from the prison into the village — should take vastly different lengths in time. The latter, considering the messenger Zeng has taken a return trip from the village to the prison earlier in the film, should take significantly shorter than the former. However, these two parallel plot lines converge conveniently at the film’s climax. One could argue that if Tai Lung arrives at the village before Po has learnt his kung fu, there would not be any film at all. And it is precisely this fact that I want to bring forth here: for a film to work, often there have to be logical inconsistencies. Moreover, these logical inconsistencies normally go unnoticed by the spectator, unless they watch the film repeatedly. I have chosen the two Kung Fu Panda films as examples of “logical inconsistencies” precisely because I personally did not notice the aforementioned inconsistencies until I watched these films the second time around. It is as though films tend to play a sleight of hand to cover up their inconsistencies, such as the aforementioned philosophical ones, or more technical ones such as continuity errors that make up the main attractions in TV programmes or fan websites that ridicule ‘movie mistakes’ — inconsistencies, or errors, that can only be spotted upon repeated viewings.

“Delayed cinema”

This is what Laura Mulvey (2006) means by “delayed cinema” in its multiple meanings. Firstly, “delayed cinema” “refers to the actual act of slowing down the flow of film” (p8),
which is “the essential process behind textual analysis” (p144). Textual analysis, as Mulvey alludes to, used to be a practice that only people with access to the film cutting tables, academics and the like, could do; but now, with the advancement and democratisation of technologies, any cinephile with relatively easy-to-obtain equipment, e.g. a DVD player or a computer, can slow down, pause, rewind, fast forward, etc, and do what film academics do - analyse films. Secondly, “delayed cinema” also refers to “the delay in time during which some detail has lain dormant, as it were, waiting to be noticed” (p8). This is, again, helped by the advancement in technologies that facilitates easy repeated viewings (to be discussed in Chapter 4). Today, we have TV reruns, copies of films on DVDs, which themselves are being phased out in the technological evolution by online streaming. In fact, TV reruns and video (in the form of tapes) started from around the late 70s which first brought about the practice of “delayed cinema” (easy entry to textual analysis) to more people. As we shall see in Chapter 1, this change in film-viewing from the 70s formed part of the reason for the wave of new film historians to revise the previously established understanding of film history as linear, especially in regards to early cinema. Therefore, “delay” is not just limited to the analyses of individual films by means of repeated viewing, it also represents the “delayed” understanding in film history, not previously achievable before the 70s when film archiving became properly focused on (see Chapter 1). Furthermore, film theory also seems to benefit from the mechanism of “delay”. The 1970s saw the rise of psychoanalytic film theory for which Mulvey was largely responsible, with her seminal article “Visual Pleasure and Narrative Cinema” (1999/1975). However, the 80s would then see scholars, such as David Bordwell (whose work will form the basis for Chapter 3), chastising these previously treasured theories, including psychoanalytic theory, and structuralism and semiotics that came before, later branded as “Grand Theory” since the 90s, and bringing film studies back to a more empirical approach (see Chapter 3). As a result, Mulvey wrote her 2006 book, Death 24x a Second, “partly to underline the irrelevance of ‘Visual Pleasure and Narrative Cinema’ to contemporary modes of spectatorship” (2015, p50) However, Mulvey’s 2006 work does not completely render her 70s work irrelevant as such. What her 2006 work does is to supplement the 70s work with the knowledge that could only be culminated by the ‘delay’ of around 30 years, with her concepts of the “possessive spectator” and the “pensive spectator”, both of which still largely utilise supposedly outmoded psychoanalytic concepts (such as the “gaze”, fetishism and the compulsion to repeat) but in a new light.
Therefore, ‘delay’, as a mechanism, can be at work on three levels: in textual analysis (by means of slowing down/pausing the film, or simply by repeated viewing), in a revised understanding of film history, and, as an ‘update’ to supplement previous knowledge in film studies. Mulvey has only likened the first mechanism of delay to the Freudian concept of *nachträglichkeit*, translated as “deferred action” or “afterwardness” (see Chapter 4). As Mulvey explains, *nachträglichkeit* is “the way the unconscious preserves a specific experience, while its traumatic effect might only be realised by another, later but associated, event” (2006, p8). In Chapter 4, I shall demonstrate that the concept of *nachträglichkeit* has much more far-reaching application than simply as an obscure term within Freudian psychology. Furthermore, taken more broadly and freed from connotations of the unconscious and sexuality, the concept of *nachträglichkeit* simply describes the mechanism of ‘looking back’ and discovering what has been unnoticed in the past in light of encountering something new in the present. This description perfectly aligns with Mulvey’s “delayed cinema”, in the sense that the academic/cinephile looks back at a film that they have already seen by means of new technologies to slow, pause or simply replay, and finds previously unnoticed detail that intellectually excite them. That is the first level at which ‘delay’ can be found at work. This thesis will attempt to take the Freudian concept to the other two levels, film history and film theory, as well.

The concept of *nachträglichkeit*, taken purely as a mechanism of “looking back”, can be applied to film history, and to film theory. In film history, the 1970s’ rise of TV and video, together with the urgency engendered by some of the crises that film has had to face, including the accelerated decay of film stock, created a new backdrop for thinkers to look back upon the nature of cinema and its inception. Film historians, such as Tom Gunning (2004(1993)), see the late 1970s as a time for “correcting the scholarship of previous generations of scholars (who had not had easy access to film archives)” (p41), a sentiment which is echoed in Mulvey’s opinion that technology has enabled more access to textual analysis to people who have been previously unable to engage in such analysis. As a result, in the 80s, Gunning put forward his influential concept of the “cinema of attractions”, which describes the distinctive features of early cinema before around 1908 (see Chapter 1). This has been a departure from the consensus in previous understanding of film history before the 70s, in that it severs the previously assumed link between early cinema and modern narrative cinema. I would argue that Gunning's contributions have been borne out of his own process of *nachträglichkeit*, a ‘looking back’, as the new socio-economic environment, as well as the technical difficulties, surrounding the film industry in the
1970s, provided a platform for him to look back upon already established understanding of film history and to find something new.

The 1980s was also a period that one writer has described as a “decade of replays” (Shales 1986, quoted in Gordon 2004(1987), p117), partly due to the fact that the TV schedule started to become full of reruns of old TV shows and old films (a phenomenon that has been carried over till this day). Obviously, replays and reruns inherently connote a ‘looking back’ in their prefix ‘re’. In 1985, Back to the Future (Robert Zemeckis, 1985) was released and led to two sequels released in 1989 and 1990. The Back to the Future series, which will be the main focus of Chapter 2, are some of the films that conveniently embody a lot of the arguments discussed in this thesis. Not only does backwards time travel (which the protagonists in the films find themselves doing a lot) inherently encompass a ‘looking back’ by physically being back in time, among many other things, the films also perfectly reflect the nature of the 80s as the “decade of replays”. In one scene of Back to the Future, after Marty (Michael J Fox, who himself came to fame from television in Family Ties) is transported from 1985 to 1955, he sees an episode of The Honeymooners on the television and tells his would-be family (who are 30 years younger and have no idea of Marty being their future relative) that he has seen that particular episode as a rerun (as he has done ‘back’ in 1985). The family find his comment strange because the episode is a first broadcast right then in 1955. Apart from the hugely popular and influential Back to the Future films, the 1980s also saw a slew of time travel-themed films that seems to mark the rise in its popularity in this particular “decade of replays”, including Somewhere in Time (Jeannot Szwarc,1980), The Final Countdown (Don Taylor, 1980), Time Bandits (Terry Gilliam, 1981), The Philadelphia Experiment (Stewart Raffill, 1984), The Terminator (James Cameron, 1984), Peggy Sue Got Married (Francis Ford Coppola, 1986), Bill & Ted’s Excellent Adventure (Stephen Herek, 1989), etc. But the Back to the Future films remain some of the most elaborate, and certainly among the most popular films, that explore time travel as a social commentary, a moral dilemma, a narrative device and a stylistic element. Unfortunately, these films are also where inevitable “logical inconsistencies”, which time travel can sometimes entail, are the most apparent. These will be discussed further in Chapter 2 where I shall be offering a brief explanation of the ‘why’ and the ‘what’ of time travel. Meanwhile, “back to the future” also happens to be a metaphor that some writers have used to describe the state of affairs in film theory. John Mullarkey (2009) believes that since David Bordwell's effort (also started in the 80s) to abolish Film Studies' over-reliance on “Grand Theory” in the 60s and 70s
and to focus on the films themselves, there is an “increasingly empirical bent of the post-
Bordwellian era,” hence transforming film theory back to “film studies from which it once
emerged,” concluding, “Bordwell has brought us back to the future” (p32). Meanwhile, D.
N. Rodowick titles the section on the brief history of Film Studies in The Virtual Life of Film
(2007) as “Back to the Future” (p9), referring to the fact that while the digital may have
effectively killed the film stock as a medium, it has created new ways to think about

At the centenary of the Lumières’ first public screening of their cinématographe, Toy
Story (John Lasseter, 1995) came out which was the first fully computer-animated feature
film. The 90s seemed to mark the start of the digital’s takeover of the analogue. Naturally,
it created another new backdrop on which to look back upon the nature of film and film
theory. As Rodowick explains, “periods of intense technological change are always
extremely interesting for film theory because the films themselves tend to stage its primary
question: What is cinema? The emergent digital era poses this question in a new and
interesting way because for the first time in the history of film theory the photographic
process is challenged as the basis of cinematic representation.” (p9) Digital filmmaking is
essentially a computerised file management (as footages are now stored as computer
files). As a result, the indexical qualities of images recorded on the film stock is being
replaced by digitisations of moving images as intangible files stored on hard drives. The
use of the term ‘film’ to indicate terms which used to be synonymous with it, such as
“movies” or “motion pictures”, no longer seem applicable now that more and more ‘films’
are stored, and viewed, as computer files. Rodowick laments that “one of the great ironies
of [his] generation of film studies scholars is that [they] gained acceptance for a new field
of research by defending an object that no longer exists.” (p26) Film Studies only “gained
acceptance” as a legitimate academic study as a result of the writings of Cahiers du
cinéma, which are subsequently taken up by Andrew Sarris in the English-speaking world,
in the 1960s. However, the volatile and fragile nature of the film stock renders that the
object of study is dying before the study itself is developed properly. Rodowick’s lament
goes further: “The question is not whether cinema will die, but rather just how long ago it
ceased to be.” (ibid.) This is clearly a sentiment that is “inspired” (but in a pessimistic
sense) by Paolo Cherchi Usai’s 2001 work The Death of Cinema: History, Cultural
Memory and the Digital Dark Age, from which Rodowick cites. Cherchi Usai satirically
created the book as a sort of document to be found in distant posterity, especially with his
use of an addition zero before all the year figures (e.g. 01999 indicates what we know
simply as 1999). To a certain extent, all publications are meant as documents for posterity, but Cherchi Usai’s subtle, yet powerful, ironic undertone highlights the fact that film has long been dead whilst the rest of world is fooled into believing it is living its very long life, unaware that the digital has effectively killed it. Of course, as Rodowick points out, the digital also has its “own forms of entropic decay and obsolescence” (p20), implying that digital cinema will also one day cease to be, replaced by something else (perhaps a time machine?). The general sense of ‘changing of the guard’ in this particular view of film history has Rodowick commenting “while film may disappear, cinema nonetheless persists.” (p30)

**Overall structure of the thesis**

This thesis started from a simple, but bold, and also potentially naïve hypothesis: *that cinema will one day evolve into a time machine*. This was not a hypothesis that was drawn completely out of the blue. In 2010, I made a time travel journey back to the end of the 19th century, at one of the first public screenings of the Lumières’ cinématographe. Right then and there, I was convinced that time travel and cinema must have an intricate relationship, and that *actual* time machines must be where the evolution of cinema would go. Since then, as I went deeper into my research, my position has started to slowly change. And, the culmination of all that change is the very pages that you are reading. This thesis no longer tries to (stubbornly, or stupidly) prove that cinema will one day evolve into an actual time machine, as this is not only *hugely* impractical (for one needs an actual time machine to travel to the future to prove such a claim!). Also this is to over-generalise the wonderfully diverse and nuanced nature of the medium that we all love, cinema. Therefore, instead of working towards a proof that ‘cinema will evolve into a time machine’, I have switched the line of thought around, assuming that cinema *is* already a time machine, and the task of this thesis is to *reverse engineer* how cinema is ‘already a time machine’.

The ordering of the chapters that make up this thesis has undergone a few revisions, as this endeavour of reverse engineering has proven to be quite a *cyclical* one as well. As it were, the chapters of this thesis are now ordered 1, 2, 3, 4, 5. However, when I first started the reverse engineering process, my line of thought was 2, 5, 4, 3, 1. In fact, I am still not entirely sure if the current ordering of 1, 2, 3, 4, 5 makes the most natural sense and shows the most natural of flow. However, this is the version that I have settled on (for
now). Before the reader questions whether it was a typing mistake, or any other sort of error, in the sentence “I made a time travel journey back to the end of the 19th century”, Chapter 1 starts off by explaining my ‘time travel’ experience, the origin that sparked this project. Then, because the time travel journey took me back to the birth of cinema, and to ‘cinema’s founding myth’, this chapter will discuss topics that relate to early cinema. Then, Chapter 2 will put ‘time travel’ into context, by situating it right where its relation with cinema is most apparent — time travel films. From there, the process of reverse engineering starts, because from analyses of time travel films, and their depictions of time, three common characteristics can be drawn. These three characteristics shall be my tools to locate any inherent qualities of time travel in films that do not depict time travel. Chapter 3, 4 and 5 will then each focus on the individual characteristics that I identify in Chapter 2. In the end, this thesis attempts to establish the relationship the links up cinema, its spectator and time travel.

**The ‘same but different’ aesthetic**

Throughout this thesis, from time to time, I will be referring to what I would like to call a ‘same but different’ aesthetic. This is the extension of the ‘looking back’ I have discussed. In ‘looking back’, or *as nachträglichkeit*, one is inevitably looking at the same thing or same event (otherwise it would simply be ‘looking’ and not ‘looking back’). However, something about it is bound to be different. Just as Mulvey refreshes psychoanalytic concepts (same) that she has used since the 1970s to theorise her “possessive spectator” and “pensive spectator” (different), or Gunning revises established notions regarding film history (same) to form his “cinema of attractions” (different), a ‘looking back’ will always create an aesthetic of ‘same but different’. In the following pages, we see time travelling protagonists travelling back in time to periods of time that they have already experienced before, but the return to the past is different. Also, when a spectator views a film that they have seen for the second time, they will most likely discover elements that their initial viewing did not uncover, even though the film *always* stays the same. This is what ‘viewing and viewing again’ truly means. It is the aesthetic of the ‘same but different’ that will flow through the whole thesis.
CHAPTER 1
The attractions of cinema: the train, magic and time travel

“Careful, chief. You dig up the past, all you get is dirty.”
Gideon, Sentry of Department of Containment
*Minority Report* (Steven Spielberg, 2002)

In this chapter, I shall first explain what sparked the original idea that eventually became this thesis — *Mickey’s PhilharMagic*, a Disneyland ride. While it is not a conventional piece of cinema, its connections with cinema are fantastically intricate. It is the closest we, in the 21st century, can get to see what actually happened at the turn of the last century, in cinema’s ‘founding myth’ that involved an oncoming train on screen and a panicking audience. Cinema was very different back then from what it is now. Tom Gunning’s “cinema of attractions” (2006(1989)) describes the way early cinema (from its inception to around 1908) was because the *cinématographe* induced pleasures and thrills similar to those induced by theme park attractions. Meanwhile, *Mickey’s PhilharMagic* is a theme park attraction that incorporates cinematic qualities; it is, therefore, an ‘attraction of cinema’. At the end of this chapter, and indeed this thesis, I will argue that the most significant cinematic quality there is is time travel.

*Mickey’s PhilharMagic*

This was where the story began. In April 2010, I spent a day at the Hong Kong Disneyland with my girlfriend. Although it had already been opened for four and a half years at the time, it was my first ever visit. Despite knowing very well that Disneyland represents one of Baudrillard’s prime examples of “simulacrum” — “a real without origin or reality” (1988, p166) — with nothing but “flatness or depthlessness […] superficiality” (Jameson, 1991, p9) that characterise late capitalism, I went with extremely low
expectations\textsuperscript{1}. Surprisingly, as if a twist of fate, or, more appropriately, a turn of luck (as this thesis will demonstrate why luck is preferred to fate), it was in one of the attractions at this particular amusement park where I experienced time travel; back to the late 1890s, to cinema’s ‘founding myth’.

Of course, it was not an actual time travelling experience. But if time travel will never be invented (and the current state of affairs suggest that its invention is highly unlikely\textsuperscript{2}), this experience would be as good as actual time travel. The attraction in question is called Mickey’s PhilharMagic. Opened in 2003 in Magic Kingdom Park at Walt Disney World Resort in Florida, where it is still operating, this attraction is also running at the Hong Kong Disneyland and the Tokyo Disneyland. “PhilharMagic” is evidently a concatenation of ‘philharmonic (orchestra)’ and ‘magic’; but this naming fails to demonstrate its most significant element: its immense cinematic quality (or, one could say that it has been subtly hinted by ‘magic’). Mickey’s PhilharMagic is a screen attraction that is sometimes known as a ‘4-D film’ — an ‘ordinary’ 3-D film that we see in multiplexes today as a de facto format for almost every blockbuster with heavy use of CGI and requires the audience wear ‘3-D glasses’, plus added ‘sensation’ effects such as smell, wind and water splashes to correspond to the onscreen action. However, to call the 3-D effect ‘ordinary’ is not doing it justice. The 3-D visuals were much more dynamic, enthralling and, quite literally, ‘in your face’ than that of any ‘ordinary’ 3-D film shown at multiplexes. Before the performance began, I was completely unaware of any detail regarding Mickey’s PhilharMagic, not even its 3-D aspect. Perhaps it was the unexpectedness that made this experience powerful, to the point that I am claiming to be as good as actually travelling back in time\textsuperscript{3}. But the

\textsuperscript{1} Meanwhile, I have always adored many of the films by Disney (and Pixar), classic or modern, for personal nostalgia or pure artistic appreciation, such as One Hundred and One Dalmatians (Wolfgang Reitherman, et al, 1961), Mary Poppins (Robert Stevenson, 1964), Monsters, Inc. (Peter Docter, 2001), to name a few. Therefore I was not entirely cynical about the visit.

\textsuperscript{2} In Chapter 2, following Hermann Minkowski, Albert Einstein, and Stephen Hawking, it is understood that the only way for time travel to be possible is for the time traveller to travel faster than the speed of light. As of now, even particles in the Large Hadron Collider can only achieve speeds that are “close to the speed of light”. The possibility that a human can travel faster than the speed of light appears to be impossible. (see CERN website, https://home.cern/topics/large-hadron-collider)

\textsuperscript{3} The 3-D visual only looked dynamic and ‘realistic’ in my very first visit to Mickey’s PhilharMagic. For reasons yet to be found, in subsequent visits I have found it almost impossible to perceive the 3-D visuals as “realistic” as the first visit. It could be due to the lack of maintenance of the facility, or the fact that the “surprise factor” of a first-time viewing experience has forever gone, and hence has affected my viewing experience. Repeated viewing experience will be a topic to be discussed throughout this thesis.
3-D visuals and the ‘4-D’ sensations were not the main reason that I am claiming this was a time travelling experience.

*Mickey’s PhilharMagic* is only a little over 10 minutes long, but it has all the workings of a fully-fledged narrative feature film. Its structure reminds one of *Fantasia* (Ben Sharpsteen, et al., 1940), or its remake/sequel *Fantasia 2000* (Don Hahn, et al, 1999), especially with the emphasis on music which makes the visuals its accompaniment (one could say that it is the reversal of the use of *mise-en-scène* in conventional cinema where music usually accompanies the visuals). While *Fantasia* makes use of classical music, *Mickey’s Philharmagic* uses famous songs from classic Disney films, such as *The Little Mermaid* (Ron Clements and John Musker, 1989) and *Beauty and the Beast* (Gary Trousdale and Kirk Wise, 1991). Like *Fantasia*, *Mickey’s PhilharMagic* starts with an orchestra preparing for the performance. However, unlike *Fantasia*, the orchestra in *PhilharMagic* is animated and made up of autonomous and anthropomorphic music instruments, to be conducted by Mickey Mouse, wearing a sorcerer’s hat that resembles the one worn by his master in the *The Sorcerer’s Apprentice* segment of *Fantasia*. In fact, the overall narrative of *PhilharMagic* is a loose adaptation of *The Sorcerer’s Apprentice* (in *Fantasia* as well as the original poem by Goethe from which the *Fantasia* segment is adapted).

As the ‘performance’ is about to begin, for some reason, Mickey Mouse, the conductor (the master), momentarily leaves the stage, leaving his sorcerer hat and the baton on the conductor’s podium next to which Donald Duck (the apprentice) is sleeping. The mischievous Donald wakes up, puts on the sorcerer’s hat (as Mickey has done in *Fantasia*) and picks up the baton, wanting to try his hand at conducting the orchestra himself. He immediately loses control over the orchestra and commands them to stop. The orchestra stops except for the flute, who continues to play, on its own, the ‘Mickey Mouse Club March’ tune. Donald gets angry, grabs hold of the flute tightly and then throws it towards the audience’s direction. The 3-D effect was so strong that, as the flute appeared to fly towards us, the audience let out a collective gasp in apparent shock. I, too, was taken aback by the effect. As the flute only appeared to stop inches in front of my face where it boomeranged back to Donald, I involuntarily flinched, even though, intellectually, I knew there was no flute. And I am certain I was not the only one having
such reaction\(^4\). The whole orchestra takes revenge on Donald picking on the flute and begin a tussle in a comic, cartoony big cloud of smoke. Winds start to blow within the theatre to simulate the cloud of smoke, and Donald and the instruments appear to pop out of the smoke, and of the screen. The tussle soon becomes a swirl that sucks Donald into the screen as he struggles to escape towards the other direction, towards the audience. At this moment, I witnessed that some members of the audience, young and old, physically reached out their hands as if trying to grab hold of Donald. I did not have quite such illogical reaction, but the reality effects made by the strong 3-D visuals and the convincing ‘4-D’ wind effects made such a reaction somewhat justifiable. Later, as Donald is sucked into the swirl and falls into an abyss, he ends up in different magical worlds, each inspired by individual past Disney classics. In each world, a song from each of the corresponding films is sung by the characters of the film, accompanied by dazzling visuals. Similar realistic things-popping-out-of-the-screen 3-D effects, supplemented by added sensations ‘4-D’ effects, will dominate: Donald holds out towards the audience an enormous cake served by Lumière the candelabra in *Beauty and the Beast*, at which point the audience not only have a giant cake right in front of their faces but also smell it with the added scented vapours in the theatre; Donald is then splashed by a lot of water by a giant walking broom and bucket from *The Sorcerer’s Apprentice* segment of *Fantasia* and the audience literally gets wet as water is sprayed within the theatre; later, Donald finds himself on a ‘magic carpet ride’ (as the lyrics of the song describes) from *Aladdin* (Ron Clements and John Musker, 1992) and the audience experience the same dizziness as Donald on the carpet due to the frantically rotating point-of-view angles as well as winds being blown around within the theatre\(^5\). Crucially, the enthusiastic audience almost always reacted to these special effects, such as reaching out for non-existent objects seemingly coming out of the screen, and taking precautionary evasive action (sitting sideways or holding out hands) when the water bucket was about to be splashed towards Donald/us (as the audience could already guess what was about to happen when that particular scene was playing). The astonishing display on the screen, along with the enthusiastic audience reaction around me (and by me), resonated with everything I have known (and

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\(^4\) Even though subsequent viewings have failed to bring me back to the same level of physical assault and excitement, I have been able to observe the reactions of other first-time (or, revisiting) viewers. Many of them have indeed reacted in evasive reflex actions.

\(^5\) Curiously, as a screen performance touted for its ‘4-D’ effects, the seats are ordinary fixed theatre seats instead of motorised ones found in other ‘4-D’ attractions. However, the dizzying effects of the frantic magic carpet ride are still very effective.
not yet known) about cinema’s ‘founding myth’. In fact, the reso
nation was so striking that it gave me the feeling that I was moment
tarily transported back in time, to the screening of
L’Arrivée d’un train en gare à La Ciotat (The Arrival of a Train at La Ciotat Station)
(Auguste and Louis Lumière, 1895/6/7)^6.

**Cinema’s ‘founding myth’**

L’Arrivée d’un train en gare à La Ciotat was not ‘the first ever film shown to the public’,
but it certainly occupies a significant place in the history of the ‘birth of cinema’ and is the
centre of cinema’s ‘founding myth’. Like many of the films by the Lumières, L’Arrivée is
short and depicts a single ordinary event: in this case, the arrival of a train, as its title
suggests. The camera is positioned on the very edge of the platform, in such a way that
the train tracks cut across the frame diagonally. The perspective effects make the tracks
look the widest nearest to the camera on the bottom left of the frame, and converge to
nearly a point on the far end. The platform occupies the bottom right of the frame, where
a few people are waiting for the train to arrive. A train appears from the far end of the
tracks and is running towards the direction of the camera and the spectator. The train
becomes bigger and bigger as it approaches. The legend is all too familiar to Film Studies
students, scholars, and cinephiles: as the train was about to rush past the camera and
charge into off-screen space, many members of the audience allegedly mistook the image
of the oncoming train as reality that they were afraid of being run over by it. As a result,

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^6 L’Arrivée d’un train en gare à La Ciotat was not among one of the first films shown in
the first ever public film screening by the Lumières in 1895 at the Grand Café. There
have been several films depicting trains arriving at stations, according to Patrick Keiller,
and, according to him, the particular one in question, *La Ciotat*, was shown in “1897, or
possibly late 1896”:

“The first of the various Lumière films known as L’Arrivée d’un train en gare was
photographed in 1895 or early 1896. This film was not among those shown at the
Lumières’ first public screening in Paris, on 28 December 1895, at the Grand Café in the
Boulevard des Capucines. The first mention of such a film, described as L’arrivée d’un
train en gare d’un chemin de fer, dates from 26 January 1896. Several Lumière films of
train arrivals are known to have been photographed with static cameras placed on
station platforms, including Lumière catalogue no. 653, L’Arrivée d’un train en gare à la
Ciotat (1897, or possibly late 1896), with which the earlier film is often confused [my
emphasis]. ... The camera is perhaps nearer to the edge of the platform than in similar
films, and the approaching locomotive leans towards it, as if it might topple and crush
the cinematographer.”
(Keiller, 2007, p72)
they screamed and ran away in fear. This tale would go on to have a huge impact on how cinema has been understood in the relation between filmed image and reality.

Many writers, such as Tom Gunning (1989), Stephen Bottomore (1999) and Martin Loiperdinger (2004), have written about their doubts of the historical accuracy of any actual running away in fear. It is now generally believed that this running-away-in-fear version of cinema’s ‘founding myth’ has been an exaggerated publicity at the time (Bottomore, p181ff) that has been somewhat “passed on as a proven fact” (Loiperdinger, p89) by some earlier film historians. One such earlier film historians, Georges Sadoul (1948) have described “the panic of the crowds before The Arrival of a Train, but curiously, the testimony he cites refers to a Lumièrè street scene, rather than the train film.” (Gunning, p129-130, n1, citing Sadoul, p288) Historical records of the cinema’s ‘founding myth’ are apparently difficult to verify and conflict one another. In fact, following Maxim Gorky’s account of experiencing early film projections that are generally considered “the most detailed and articulate” (p117), Gunning believes that at the first screenings of L’Arrivée d’un train en gare à La Ciotat, while there were definitely shock and astonishment involved in the audience’s reaction, they were not fooled into believing that the train depicted on the screen was real and could cause actual bodily harm and required them to physically run away. According to Gunning, Gorky’s first impression of the cinématographe was somewhat lethargic. For Gorky, the cinématographe “presents not life but its shadows” (ibid.). Regarding his experience of watching L’Arrivée, Gorky noted the following: “It speeds right at you — watch out! It seems as though it will plunge into the darkness in which you sit, turning you into a ripped sack full of lacerated flesh and splintered bones. … [But,] this too is but a train of shadows.” (Gunning, p118) 7 Gunning recognises that Gorky’s opinion of the cinématographe is that while he appreciated the incredible “realistic effects”, there was always an underlying “conscious awareness of artifice” (ibid.). Or, as Gunning puts it, a “vacillation between belief and doubt” (p117). While Gorky’s impression leaned more towards the cynical, it mirrors my initial impression of Mickey’s PhilharMagic, which was a “vacillation” between visceral belief and intellectual doubt. Gunning believes that this ‘milder’ reaction to L’Arrivée was more likely to be the actual audience reaction, rather than the frantic one portrayed by the ‘founding myth’.

Perhaps we should call the first screening(s) of L’Arrivée d’un train en gare à La Ciotat the ‘founding truth’ or the ‘founding event’, as the audience response was most likely much ‘milder’ than the ‘founding myth’, which is the version of the same tale where members of the audience were terrorised and ran away. For Gunning, the more dramatic, running-away version “stalks the imagination of film theorists who envision audiences submitting passively to an all-dominating apparatus, hypnotised and transfixed by its illusionist power.” (p115, my emphasis) He believes that theorists who regard this version to be true and make use of it to postulate a generalised spectator are “underestimating the basic intelligence and reality-testing abilities of the average film viewer” (ibid.). He cites Christian Metz as one of these theorists, albeit with “the most subtle reading” of the mythical and (highly likely to be)⁸ false running-away version. Christian Metz does not just believe in the panicked running-away version, he even uses it to apply to a generalised contemporary spectator that is timeless. It is this timeless, ahistorical nature of Metz’s reading that Gunning finds most problematic, even though he appreciates Metz’s subtlety. He writes:

Metz’s admirable subtlety renders his analysis all the more deficient from a historical point of view. Metz describes this panicked reaction on the part of the Grand Café audience as a displacement of the contemporary viewer’s credulity onto a mythical childhood of the medium. Like the childhood when one still believed in Santa Claus, like the dawn of time when myths were still believed literally, belief in this legendary audience, Metz claims, allows us to disavow our own belief in the face of the cinema. We don’t believe in the screen image in the manner that they did. Our credulity is displaced onto an audience from the infancy of cinema. (ibid.)

Metz sees the panicking, running-away spectator at the end of the 19th century as an indication that credulity is always hidden inside the contemporary spectator, whether in 1982, when his The Imaginary Signifier was published, or in 2016, when I am currently writing this. Gunning further explains: “this inner credulous viewer supplies the motive power for Metz’s understanding of the fetishistic viewer, wavering between the credulous position of believing the image and the repressed, anxiety-causing, knowledge of its

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⁸ The introduction of the ‘logic of chance’, or statistical thinking, in Chapter 5 will give insights as to why I claim the mythical version to be only “highly likely” and not entirely false, as does Gunning.
illusion.” (p115-116) Of course, when Metz was writing *The Imaginary Signifier* he was using the psychoanalytic framework that was still the dominant approach in Film Studies (in fact, the subtitle itself, *Psychoanalysis and the Cinema*, is a dead giveaway!). The psychoanalytic approach mostly focuses on the internal conflict between the conscious mind and the unconscious. In Metz’s timeless and generalised spectator, it is no exception: the conscious intellect of the spectator knows the movement on screen is an illusion, while their subconscious mind still retains the credulity that believes what is shown on screen is real; but this credulity is being repressed by the subconscious. In Chapter 3, we will be looking at the “Post Theory” approach to film that has superseded the previously dominant psychoanalytic approach which Metz is using in his timeless spectator. Post-Theorists argue that the psychoanalytic, “Grand Theory”, approach takes the psychoanalysis as a prerequisite and then attempts to shoehorn any reading or theory of film into this framework. Post Theorists argue that proper film theorising (the emphasis is on the act of theorising rather than the end product of a singular theory which is a reduction that does not suit a field as diverse as Film Studies) should be the reverse of what “Grand Theory” does — starting from individual film(s), taking note of any historical or cultural significance that may make their individual cases unique and avoiding any overgeneralisation. A Post Theorist like David Bordwell (whose work will be the centre of Chapter 3) only uses hard facts and empirical studies to tackle smaller, localised problems, such as how film narration works purely on a cognitive level, a topic that will be discussed in Chapter 3. As a film historian, Tom Gunning uses a similar approach to Post Theory in that he values the historical nature of cinema’s ‘founding myth’. He prefers a more nuanced and historicised approach to early cinema and avoids any convenient generalisation and integration of ‘film history’ as a singular whole. Gunning finds evidence to show that the ‘myth’ version of audience members running away is false, and also historicises the audience, who were after all watching it in 1896, to be astonished, rather than panicked. Furthermore, by ascribing the audience reaction to be astonished rather than panicked, Gunning is also hinting at that he is making his judgement based, not only on rigorous historical research, but also on common sense and logic. Gunning asks the following logical questions:

what context does account for the well-attested fact that the first projections caused shock and astonishment, an excitement pushed to the point of terror, if we exclude childlike credulity? And, equally important, how could this agitating experience be understood as part of the attraction of the new
invention, rather than a disturbing element that needed to be removed?
(p116)

Firstly, Gunning’s common sense and logic reject any possibility that adults, even in 1896 who may not have seen pictures that move, would have a childlike credulity that is similar to believing in Santa Claus, as is suggested by Metz's reading, and would believe the moving images to be reality. Secondly, Gunning is doubtful about the illogical causal link between an invention that supposedly has caused terror and the said invention not being immediately removed as a result of the terror caused. The closest analogy of this in recent history is the unveiling of the original Apple iPhone in 2007. Although it was only about ten years ago, rather than more than 120 years in the case of the invention of cinema, the fast adoption rate of the modern smartphone, which has made it an indispensable and ubiquitous commodity today, arguably makes the unveiling like a distant memory. Consider the reaction to the groundbreaking unveiling in 2007, if the sight of a single advanced touch screen replacing the long-established aesthetic of a non-interactive screen with an equal-sized keypad/keyboard left the audience in disgust, or even terror (or any negative reaction), rather than marvel and wonderment (a positive reaction), the modern smartphone would not have survived. The same logic can be applied in cinema’s founding myth. The cinema has flourished and developed ever since its ‘unveiling’.

By such logical approach, Gunning has shown that logic alone may already be enough to render cinema’s ‘founding myth’ defunct. He admits that there was definite shock in the audience at the screening of L’Arrivée d'un train en gare à La Ciotat. But the shock also most definitely did not result in terror; instead, the shock led to astonishment that had the audience marvel at the new invention which was the cinématographe, its incredible visuals that were presented to them, so incredible that it even gave them shock. Gunning explains: “The audience’s sense of shock comes less from a naive belief that they are threatened by an actual locomotive than from an unbelievable visual transformation occurring before their eyes, parallel to the greatest wonders of the magic theatre.” (p119) [my emphasis] In Gunning’s understanding, the shock itself did not come from credulity that he describes as “naive”; rather, it was merely an involuntary reflex action — when something appears to come at you at speed your reflex system bypasses any cognitive process and does the evasive action for you — it is phenomenological, rather than psychological. This is what Gunning means by “vacillation between belief and doubt”: it is
an internal conflict between the intellect, which knows what is on screen is not real, and the reflex which bypasses it.

Gunning’s milder version of cinema’s founding myth resonates a lot more with the experience I had at Mickey’s PhilharMagic than the more dramatic version in which members of the audience ran away in fear — nobody screamed at the Mickey’s PhilharMagic theatre nor ran away from it. This is also the version adopted and depicted by the film Hugo (2011) which, as if by cosmic coincidence, came out only a year after my experience at Mickey’s PhilharMagic. Based on Brian Selznick’s illustrated novel published in 2007, The Invention of Hugo Cabret, Hugo tells the story, set in around 1930, of the titular protagonist, Hugo (Asa Butterfield), a 12-year-old-boy fascinated by cinema, and, through the help of a fictional film historian, discovers George Méliès who at the time had been largely forgotten. Directed by Martin Scorsese, a passionate lover of film and an avid campaigner for the restoration of old films and the continued use of film stock, it was perhaps fitting, almost ironic, that Hugo was his first (and, so far, only) film he has ventured in digital 3-D filming. The cinema’s founding myth is depicted in the film not once, but twice. The first one is when Hugo and his new friend, a fictional goddaughter of Méliès’s, Isabelle (Chloé Grace Moretz) are reading the fictional book, The Invention of Dreams, by the fictional film historian, René Tabard (Michael Stuhlbarg). On the book it recounts L’Arrivée d’un train en gare à La Ciotat as “one of the first films ever shown” in 1895 (which was not the case in actual history, see note 4). As a visual reenactment of the book, the film shows a flashback sequence that depicts an audience watching L’Arrivée, and as the train on screen appears to come rushing towards the audience, they gasp, some dodge, turning their bodies sideways while others momentarily leave their seat. Nobody in this sequence actually ran away. However, as the film ends this short flashback and returns to the present timeline when the two characters are reading the book, Isabelle reads: “When the train came speeding toward the screen, the audience screamed, because they thought they were in danger of being run over.” And Hugo and Isabelle giggle in mocking. The second time the film depicts cinema’s founding myth is when Méliès (Ben Kingsley) recounts his first encounter with the cinématographe. In a flashback, Méliès is at a fairground (not much unlike the Disneyland setting of my own story), and he is drawn to one of the attractions. He enters, and he sees a screening of L’Arrivée d’un train en gare à La Ciotat (which historically was not the first cinématographe
that Méliès saw⁹. It is not the same screening as the first flashback but the audience exhibit a similar reaction as the first depiction (note the “same but different” aesthetic mentioned in the Introduction). The version of cinema’s founding myth depicted in Hugo is a strange mix of both Gunning’s strictly logical, and historical, reading and Metz’s mythical one. For starters, the astute reader may have already spotted a lot of the use of the word “fictional” in my description of the film; that has been intentional. Of course, Hugo is a film that is never meant to be a documentary; it is based on a novel with mostly fictional characters. And, even if a fictional work circles around actual historical figures (as in the case of Méliès and his wife Jeanne in this case), it is perfectly fine for them to be entirely fictionalised and not based on historical facts, like Abraham Lincoln moonlighting as a vampire hunter¹⁰.

What makes the blending of the factual and the fictional in Hugo interesting is the historical significance of both the actual audience reaction to L’Arrivée d’un train en gare à La Ciotat as well as the mythical version (which as Metz has shown has been regarded as history). Although the two depictions of the audience reaction to the train on the screen are not as dramatic as the myth, the reaction of Hugo and Isabelle after reading about this event brings the attitude over to the mythical side. The mocking giggle that they share reflects the sentiment of “we don’t believe in the screen image in the manner that they did”, as Gunning describes Metz’s timeless spectator would think. The fact is that, under logical reasoning, nobody ever really believed in the screen image in any manner whatsoever. The flinches and the jumps were as a result of hardwired reflex actions in the human nervous system. What they believed, in their intellect, was how astonishing the shocking visual effect was to trigger those reflexes. Back in Mickey’s PhilharMagic, the gasps and the wows were all as a result of the unexpected 3-D depth of the image, inducing a visceral reaction. Visually, the objects that appeared to pop out of the screen genuinely looked as though they were a couple of inches away from my face. However, some members of the audience did reach out their hands as if they were trying to grab the objects. Were they naïve enough to believe that the objects were real? Or were they trying to prove that their eyes were deceiving them, when they knew very well that the objects were not real? Such a proof is logically unnecessary, if not contradictory, when

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⁹ Gunning, 1989, p118-119. Gunning quotes Sadoul, p271 describing Méliès’s first impression of experiencing the cinématographe. Apparently the setting of the film he saw was of La Place Bellecour in Lyon, not La Ciotat station.

¹⁰ Abraham Lincon: Vampire Hunter (Timur Bekmambetov, 2012), also based on a novel, by Seth Grahame-Smith, of the same name.
one already knows the answer beforehand. What is the reason behind such reactions? Reaching their hands out was evidently not a reflex action which bypasses the intellectual mind, but a decision that was made in the mind. This appears to be an issue that Gunning’s logical model cannot adequately answer.

Perhaps there is some truth in Metz’s reading. A closer look at Metz’s work reveals that the dichotomy between the logical and the mythical may not be as clear-cut as one initially would think. Metz borrows Octave Mannoni’s work on theatre to theorise his general, timeless film spectator, because he believes, while theatrical fiction and cinematic fiction show differences in the representation, they share similar characteristics in “the represented, i.e. the fiction-fact as such” (1982, p72). In other words, he believes the way the spectator take in the story, or narrative, of a theatrical performance is similar to that of a film. Regarding how the spectator takes in the story, Metz writes: "It is understood that the audience is not duped by the diegetic illusion, it ‘knows’ that the screen presents no more than a fiction." (p72) He describes the process of film viewing as make-believe. He considers three layers of fiction: the diegetic events depicted in the film is the first fiction; that "everyone pretends to believe that they are true" is the second fiction; and, "the general refusal to admit that somewhere in oneself one believes they are genuinely true" is the third fiction. The second and the third layers are within the spectator, and Metz’s description of them is similar to a personality split. The "credulous person is, of course, another part of ourselves, he is still seated beneath the incredulous one, or in his heart, it is he who continues to believe, who disavows what he knows” (ibid.). Again, like Gunning has described, there is an internal conflict within the spectator. But, whereas in Gunning’s model, the spectator struggles between their intellect and their reflex actions, Metz’s spectator struggles within their unconscious as it tries to repress and hide the credulous spectator within them so that their conscious self thinks it is just a make-believe: “the incredulous person disavows the credulous one; no one will admit that he is duped by the ‘plot’." (ibid.)

What is worth noting here is that both Gunning and Metz, although first appearing to have opposing models to understand their respective historical/timeless spectator, they both acknowledge that there is an internal conflict within the spectator; the only difference is in the nature of the conflict, or the pairs of opponents in that conflict. In Gunning’s model, it involves the conscious intellect and the involuntary reflexes, both of which are concrete and is backed by science in cognitivism and the study of the nervous system. Meanwhile,
the psychoanalytic framework in which Metz writes dictates that there has to be an unconscious involved. And, as Post Theorists have always insisted, the biggest weakness in psychoanalytic film theory is that it has no solid scientific backing: the disavowal is nothing but conjecture. But treated as a mere metaphor, spectatorial disavowal can offer interesting insights, at least in the reading of films and their narrative. Metz uses Pierre Corneille’s 17th century play *L’illusion Comique* as his example. In the play, the character Pridamant does not know he is watching a play the entire time and thinks his son Clindor is actually killed. Tragedy becomes comedy in the end when it is revealed that Pridamant has been fooled and Clindor is only an actor in the tragic play that Pridamant has been watching. Similar themes have been explored in films such as *Total Recall* (Paul Verhoeven, 1990; and Len Wiseman, 2012), *eXistenZ* (David Cronenberg, 1999) and *Inception* (Christopher Nolan, 2010). But instead of having a final reveal like *L’illusion Comique*, the protagonists (and the spectator) of the three films above do not get the final resolution as to whether they are in reality or virtuality (dreams and virtual reality games in these examples). As Metz explains, "by a partial identification with this character [Pridamant], the spectators can sustain their credulousness in all incredulousness." The "partial identification" is the projection of the spectator's credulous self. By projecting the credulous self "into the outer world and constituted as a separate person" (ibid.), the spectator can disavow his inner credulous self and believe 'I am not like him,' when, in Metz’s analysis, they actually are. This is where Metz finds usefulness in cinema's founding myth and its (mythical) audience that screamed and ran away. The audience that fled in fear of being run over by a real train that was coming towards from the screen, for Metz, constitutes the Pridamant-like character onto which the contemporary film spectator can project their credulous inner self and, ultimately, disavow. In the end, it almost does not matter whether Metz actually believes cinema's founding myth bears any historical accuracy, whether people actually ran away from what was mere a 'shadow' of a train. Like Pridamant who is a fictional character, this incredibly credulous audience that ran away in fear only functions as a metaphor. Fictional or not, real or not, its function stays the same.

This deliberately ambiguous reading of Metz is reminiscent of the work of Abbas Kiarostami, which has an underlying theme of exploring the idea that *it does not matter whether something is real or fake*. This theme is perhaps most explicitly manifest in *Certified Copy* (Abbas Kiarostami, 2010), although other works by Kiarostami also embody this theme to varying degrees. The upshot at this point is that whether the
audience at the first screenings of *L’Arrivée d’un train en gare à La Ciotat* actually screamed or even ran away in fear *does not matter*. For Metz, this historic/mythical audience only serves as a metaphor for his timeless disavowing spectator; whereas, for Gunning, he sees the audience at the screening of *L’Arrivée* as real historical figures. In Gunning, from the doubt in the authenticity of the ‘foundin myth’, we find two logical questions, namely why intelligent adults would be so credulous as to believe in a projected screen, and why an invention that can induce such a horrific reaction would be branded as an attraction rather than disturbing and should be removed. As we have seen from the above, Gunning answers the second question by affirming that the historical audience was not in fear and was instead shocked and astonished. Meanwhile, in investigating the first question, Gunning develops his famous concept of the “cinema of attractions”, which makes my Disneyland experience more pertinent to our current discussion.

“Cinema of attractions”

Ask an average filmgoer for their opinion on a film they have just seen. Most would probably remark on their engagement with the film’s narrative: for example, how cleverly the plot is presented to them. In recent cinema history, Christopher Nolan is arguably one of the masters of crafting clever plotting into their films. Many fans of, and writers on his work focus on the way he sets up the plot, or syuzhet (detailed discussion on syuzhet/fabula, or plot/story, in Chapter 3), and on the nature of film being a “storytelling medium” (Gunning, 2006(1986), p381). Gunning has observed that the history of cinema, from the moment the Lumière brothers publicly screened *La Sortie de l’Usine Lumière à Lyon* (Workers Leaving the Lumière Factory) (Auguste and Louis Lumière, 1895) to the late 80s when he put forward the concept of the “cinema of attractions”, had been “written and theorised under the hegemony of narrative films” (ibid.). In other words, Gunning feels that his predecessors, while appreciating the significance of early cinema of the Lumières and Méliès, accredit the significance for the wrong reason - as the progenitor of classical narrative cinema.

Gunning believes such practice of equating early cinema to a precursor that prefigured modern-day narrative cinema “potentially distort[s] both the work of these filmmakers [of early cinema] and the actual forces shaping cinema before 1906.” (ibid.) As a result, Gunning creates the terms “cinema of attractions” and “cinema of narrative integration” as a way to decouple what he thinks is an arbitrary relationship between early cinema and
narrative cinema which, for Gunning, began in around 1908 with D. W. Griffith\textsuperscript{11}, instead of 1895 with the Lumières.

These terms are an attempt to overcome the two primary approaches from the previous generation to understanding the change which occurs in filmmaking prior to the introduction of feature films. One (the most discredited now) has been the simple progress explanation which sees a movement, basically due to trial and error and the intervention of certain men of genius, from 'primitive' film-making to the foundation of the later narrative style. The other (somewhat more sophisticated, but we feel equally misleading) explanation has described this change as a movement from a reliance on theatrical models to a more cinematic approach to narrative. (Gunning, quoted in Elsaesser 1990, p4, who quoted from the typescript of Cherchi Usai 1987)

Gunning finds it unsatisfactory that, up until the late 1970s, film history had been largely considered in what he calls the “continuity model”, a model that “sees early cinema as a preparatory period for later film styles and practices, the infancy of an art form.” (2004)(1993), p41) Until the 1970s, the general consensus of film history was that early cinema, before around 1908, was a primitive form of what was to come — narrative cinema. However, the 1970s was when it all started to change. According to Thomas Elsaesser (1990), the 1970s saw the beginning of speculation “on the demise of the classical cinema’s hegemony” due to various cultural, economic and technical factors that surrounded the film industry, writers began to think of early cinema in a different perspective as a result. As Elsaesser explains: “The transformation of film viewing, the re-

\textsuperscript{11} The exact year of the "split" between the dominance of "cinema of attractions" and the rise of "cinema of narrative integration" is not consistent throughout Gunning's work. In his article "The Cinema of Attraction[s]" (1986/2006) that introduced the term, he specifies 1906 (p381), or "about 1906-1907" (p382). In Gunning 1989, it is "1903 or 1904" (p121). And then in Gunning 1993/2004, it is “1908 or so” (p43). 1908 was the year Griffith began releasing films, and Griffith is considered, by Gunning and others, as the filmmaker that created an early form of narrative cinema. Meanwhile, he attributes that “the period from 1907 to about 1913 represents the true narrativisation of the cinema, culminating in the appearance of feature films which radically revised the variety format” (1986/2006, p385) that was the cinema of attractions.

(Also see Gunning, 1991, \textit{D.W. Griffith and the Origins of American Narrative Film}, Champaign: University of Illinois Press,)
privatisation of consumption of audiovisual material through television, videotape and other recent technologies of storage and reproduction were obliging historians to try and integrate the history of cinema into the wider cultural and economic context” (p4) of the film industry. Furthermore, in 1978, the FIAF (International Federation of Film Archives) conference was held in Brighton which “brought together for the first time archivists and film scholars around a common purpose,” (p2, my emphasis) which is to realise the urgency for film preservation, which was, in turn, in response to specific crises at the time, namely “the Langlois affair in 1968, various disastrous fires, the lifespan of nitrate film coming to an end” (ibid.) etc. As a result of this, the late 70s became the time when the "revision of early film history" began and it became "a process of correcting the scholarship of previous generations of scholars (who had not had easy access to film archives) through more careful film analysis and a thorough winnowing of secondary material, such as trade journals, film catalogs, and business records" (Gunning, 2004(1993), p41) In the Introduction, we see Laura Mulvey makes a similar point about earlier film theorists having difficult access to films to engage in textual analysis. She is referring to the advancement in storage media, from videotapes to the DVD (the most current form would be streaming, which was not yet widely adopted at the time when Mulvey made the comment in 2006), that makes it easier for anyone to engage in textual analysis. It all started from the 1970s when film archiving began to be taken seriously.

The various social, cultural, economic and technical circumstances that arose in the 1970s led to the revised view of the history of cinema which also led to the realisation of the necessity of film archiving. It was under these circumstances that three previously held assumptions that make up the “continuity model” have been slowly broken down: the “evolutionary assumption”, the “cinematic assumption” and the “narrative assumption”. Gunning, and André Gaudreault13, developed the term “cinema of attractions” to single out “an aspect of film culture during the period 1895-1906” (Väliaho, 2010, p26), precisely to break the “continuity model” that ascribes an arbitrary relationship between early cinema (cinema of attractions) and classical/contemporary cinema (cinema of narrative integration). What Gunning wishes to achieve with the two terms — “cinema of attractions”

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and “cinema of narrative integration” — is to highlight the fact that the “cinema of attractions” is not the reason for the existence of the “cinema of narrative integration”, and, more importantly, the “cinema of narrative integration” should not be considered as an improved version of the “cinema of attractions”. This is what the “continuity model” fails to see, blinded by the three assumptions. We shall look at them one by one.

The “evolutionary assumption” makes up the majority of the “continuity model” of the understanding of film history. It assumes that the development of cinema — its content, its technique — has been a linear descent from the Lumières to the films of today, say, by the aforementioned Christopher Nolan. In all fairness, this is an easy trap to fall into. The first impression I had when I witnessed the audience reaction at Mickey’s PhilharMagic in 2010 was not the sophisticated platform for the reflection on, and comparison to, cinema’s ‘founding myth’ that I am currently trying to dress up as on these very pages; my first impression was an outlandish hypothetical question: “What if the evolution of technologies that has led to the invention and development of cinema so far will bring it all the way to the ultimate: an actual time machine?” It was precisely this very question that sparked the birth of this project. Gunning describes his predecessors who have accepted the “evolutionary assumption” as seeing “cinema before WWI as primitive, an early stage in which later potentials are sketched out but imperfectly realised” (2004(1993), p41) [my emphasis]. This implies that, for those writers who believe in cinema’s supposedly linear evolution, classical and contemporary narrative cinema have realised at least some potentials that early cinema before around 1908 might have, but hidden and not fully realised. If that is the case, then my initial hypothetical question projects this view onto the future. The initial hypothesis believed that, in the films of today, there are some hidden potentials which are not yet realised but will be in the future; and, the form of cinema which will have its potentials fully realised will be in the form of a time machine. Such initial thinking, which started this project but has since undergone significant revisions, was evidently a result of what Gunning calls the “evolutionary assumption”.

This assumption of the time machine is reminiscent, to a certain extent, of André Bazin’s idea of a “Total Cinema” (or, as the flip side of the same coin, Paolo Cherchi Usai’s “Model Image” (2001)). In Bazin’s writing (2005(1967)), cinema is positioned as the highest point (so far in 1967) on the linear evolution of arts that attempt to achieve progressively “higher degree[s] of realism” (p40). In “The Evolution of the Language of Cinema”, Bazin
describes the changing and development in film techniques over the years, from the montage in silent cinema to the deep focus in the talkies, as following the same progression towards higher realism, to a point that film “has at its disposal more means of manipulating reality” (ibid.) and filmmakers are afforded more creativity. In “The Myth of Total Cinema”, Bazin characterises the development of cinema as a “reversal” (p17), one that moves backwards to a preconceived ambition of recreating a ‘perfect realism’. Bazin calls it the “myth of Total Cinema”, a ‘myth’ that is “inspiring the invention of cinema, is the accomplishment of that which dominated in a more or less vague fashion all the techniques of the mechanical reproduction of reality in the nineteenth century, from photography to the phonograph, namely an integral realism, a recreation of the world in its own image, an image unburdened by the freedom of interpretation of the artist or the irreversibility of time.” (p21) It is Bazin’s understanding that photography, and subsequently, cinema, are the successors to painting and sculpture of becoming the new flag bearers for realism. In “The Ontology of the Photographic Image”, Bazin describes photography as freeing the ‘plastic arts’ “from their obsession with likeness”, because he believes the ‘automatic’ nature of photography makes it superior in achieving realism. For Bazin, photography is likeness, a “mechanical reproduction … of which man plays no part.” (p12) Bazin then goes on to provide his understanding of the ontological nature of the photographic image: a quote that is as well-known and well-worn as cinema’s ‘founding myth’ among students and scholars of Film Studies, but it does bear repeating here for it has connections to many of the subsequent discussions.

The photographic image is the object itself, the object freed from the conditions of time and space that govern it. No matter how fuzzy, distorted, or discoloured, no matter how lacking in documentary value the image may be, it shares by virtue of the very process of its becoming, the being of the model of which it is the reproduction; it is the model. (p14)

For Bazin, photography achieves a higher degree of realism than portrait paintings and sculptures, which precede it, because of the “very process of its becoming”, its automatic indexicality. By the same token, cinema, by virtue of being photography with added (illusion of) movement, achieves an even higher degree of realism. "Total Cinema" will be a form of cinema that realises perfect reproduction. Bazin claims that it has been the myth (or, more precisely, the wish or dream) of the existence of such "total cinema" that has been driving innovators towards the ‘invention' of cinema which, paradoxically, "has not
yet been invented”, because "total cinema" has not yet been invented, the myth, or dream, is still being chased. Bazin believes "Every new development added to the cinema must, paradoxically, take it nearer and nearer to its origins," (p21) which refers to the "myth of Total Cinema". For Bazin, the invention and the development of cinema seem to take on a reverse engineering approach not much dissimilar to mine (see Introduction): there is already an ideal “total cinema”, which is cinema’s origin and does not exist yet; innovators will have to work backwards towards the origin. Furthermore, “total cinema” seems to coincide with the time machine of my initial hypothesis, which, above all else, represents a perfect reproduction of reality. However, unlike my initial hypothesis that now appears to be littered with wrong assumptions that led to a premature conclusion, Bazin’s elucidation of the “total cinema” is a lot more subtle and nuanced.

Meanwhile, Bazin appears to have fallen victim to the trap that is the second assumption which Gunning believes need breaking down: “the cinematic assumption”. As Gunning explains, the “cinematic assumption” stems from the “evolutionary assumption” in that it gives the evolutionary assumption more specificity in “defining the goals of the development of film art with more precision”, a development that “came from a discovery and exploration of its true cinematic essence” (2004(1993), p41). For Bazin, the “cinematic essence” is realism, which in turn constitutes the myth of “Total Cinema” (or my time machine, for that matter). Gunning does not believe there is necessarily a cinematic essence that can define and unify cinema from different historical periods (and geographical locations, I may add). Again, in a similar manner that he tries to historicise the audience in cinema’s founding myth, like Post Theorists (which I shall discuss in Chapter 3) who champion theorising of smaller, more localised and “piecemeal” problems, instead of over-generalising and attempting to find the unifying “essence” that can be ascribed to all of cinema, he believes that assuming an existence of a cinematic essence is detrimental to film history and film theory. Similarly, Noël Carroll, a strong proponent of Post Theory, objects to what he calls the “medium specificity” argument in previous film theory, which “indicates, limits or dictates the style and/or content of [film]; and, … that film possesses such an essence.” (1996b, p50) Without making the “cinematic assumption”, cinema should be acknowledged as being “hybrid medium […] comprised of multiple components irreducible […] to a single essence, and thus remains open to a plethora of diverse and even incompatible styles and formal approaches.” (Rodowick, 2007, p36) Jean-Luc Godard, who worked under Bazin in Cahiers in the early 1950s, also shares similar view when he alludes to cinema’s parallel histories — the (s) of the title
*Histoire(s) du cinéma* is already an obvious indication. Not to mention his films are mostly neither mainstream, nor classical, but exist outside of the assumed evolutionary descent of film history.

Finally, the third assumption is what Gunning calls “the narrative assumption” which completes the “continuity model” of the understanding of film history as a singular and linear line of evolution. Gunning refers to the semiology of, again, Christian Metz and alludes to the flaws of film theory up to the 1970s. According to Gunning, “Metz reworked the assumption of a natural cinematic essence by highlighting the narrative function, declaring that cinema only truly appeared when it discovered the mission of telling stories” (2004(1993), p42). However, the quote that Gunning selects to illustrate Metz’s “narrative assumption” is, in fact, probably more complex than Gunning makes it out to be. Metz writes, “The very nature of the cinema rendered such an evolution [from early cinema to narrative cinema], if not certain, at least probable.” (Metz, 1974, p44, quoted in Gunning, ibid., p42) The issue here lies in “at least probable”. As we shall see in Chapter 5, evolution is not a linear chain of history made up of cause and effect, but a more complex *correlation*. By saying “at least probable”, Metz in fact implies his acknowledgement that narrative cinema might not have been the outcome as a result of the assumed evolution of film history; cinema could have been something else *besides* narrative cinema, but it *is* the outcome we have got after all. Gunning defines the three assumptions to be taken together to formulate the “continuity model” of film history which he considers to be detrimental to the understanding of early cinema.

In the “continuity mode”: the theorist assumes a singular and linear evolution of cinema from the Lumières, who *invented* cinema, to the present day, when cinema is at its most matured form yet. Somewhere along this evolution, a bunch of visionary filmmakers, D. W. Griffith among others, have found the essence of cinema, which is its inherent storytelling capability. This essence has been improved upon ever since.

Such is a model that Gunning deems wrong in considering early cinema and film history as a whole. For Gunning, the “cinema of attractions” did not engender the “cinema of narrative integration”. However, the word “evolution” may have been misinterpreted and misused on Gunning’s part. What Gunning opposes is the linear cause-and-effect relation that film historians prior to 1970s (Georges Sadoul and Jean Mitry are examples that Gunning has cited) have ascribed to the supposed progress from early cinema to classical
cinema: early cinema, therefore narrative cinema. However, as I shall discuss more on Chapter 5, evolution is not a linear cause-and-effect mechanism; it is a much more dynamic correlation. When Metz states that narrative cinema has been a “probable” evolution from early cinema, he actually gets correlation right. We cannot deny that the majority of films today are narrative films and belong to the “cinema of narrative integration”. This is why I wager fairly confidently at the start of this section that the most probable answer one can get from an ordinary moviegoer on a film that they have seen is about narrative. Mainstream cinema has indeed been evolved into “cinema of narrative integration”, but not because of "cinema of attractions". The two are linked by correlation. In fact, there are elements of "cinema of attractions" in today's blockbusters and feature films that are mainly "cinema of narrative integration": special effects, CGI, action sequences, etc., all constitute the attraction in "cinema of attractions". Also, Gunning even acknowledges that "storytelling is not totally foreign to cinema before the nickelodeon boom (1905-1909)," (ibid.) i.e. before what Gunning considers the beginning of "cinema of narrative integration" with Griffith's films. Gunning asserts that cinema of attractions "is not necessarily opposed to" (2006(1986), p382) cinema of narrative integration. He then goes on and writes: "In fact the cinema of attraction[s] does not disappear with the dominance of narrative, but rather goes underground, both into certain avant-garde practices and as a component of narrative films, more evident in some genres (e.g. musical) than in others." (ibid.) Therefore Gunning also understands correlation and that "cinema of attractions" and "cinema of narrative integration" overlaps in film history. The use of the word "evolution" is only slightly misleading; it is clearly understood that Gunning means ‘cause-and-effect relationship' when he, as well as the film historians he criticises, uses the term "evolution".

The mechanism of the development of film history aside, Gunning’s main argument for creating the term “cinema of attractions” lies in its mode of address to the spectator, compared to the cinema that came after the period we consider as early cinema.

The aesthetic of attraction addresses the audience directly, sometimes, ... exaggerating this confrontation in an experience of assault. Rather than being an involvement with narrative action or empathy with character psychology, the cinema of attractions solicits a highly conscious awareness of the film image engaging the viewer’s curiosity. The spectator does not get lost in a fictional world and its drama, but remains aware of...
the act of looking, the excitement of curiosity and its fulfilment. ... This cinema addresses and holds the spectator, *emphasising the act of display*. In fulfilling this curiosity, it delivers a generally brief dose of scopic pleasure. (1989, p121) [my emphasis]

Gunning characterises the mode of address of early cinema as “pure exhibitionism” (2002(1986), p384) and asserts that the “cinema of attractions is one that is based on “its ability to show something” (p382). There were common elements in early cinema which would be considered *unconventional* in today's narrative cinema because, very often, the film breaks the proverbial “fourth wall” that is supposed to create the reality effect, i.e. to make our "game of make-believe" easier by not highlighting the mode of address as exhibitionist. Gunning points to the "recurring look at the camera by actors", "comedians smirking at the camera", "the constant bowing and gesturing of the conjurors in magic films" (characterised in many of Méliès's films) (ibid.). He also highlights other facts such as showmen (who introduced and explained films to the audience, and himself already an element that does not exist in narrative cinema) actively re-editing the films he has obtained for their own presenting, as well as adding "offscreen supplements, such as sound effects and spoken commentary" (p383), all of which are elements that go against the "reality effect" that narrative cinema tries hard to maintain. It is this element of an overt exhibitionism of "cinema of attractions" that Gunning believes it is "contrasted to the voyeuristic aspect of narrative cinema analysed by Christian Metz" (p382). In fact, Gunning's concept of "cinema of attractions" is considered as an alternative to the psychoanalytic "gaze" theory that was popularised by Metz and Laura Mulvey. Linda Williams (2004) notes that the concept of "cinema of attractions" can "vie with Mulvey's concept of the "male gaze" (1999(1975)) as a popular conception" because she believes he points to "aspects of spectatorial relations that have been ignored under the dominance of the gaze paradigm and that are perfectly applicable to all forms of spectatorship... aspects of all cinema that have also been undervalued in the classical paradigm" (p1267, quoting Williams 1994, p11-12) The "attractions" of cinema of attractions may often be objectified women that the "male gaze" is so adept in describing. For instance, Lucy Fischer notes that Méliès's films follow a basic pattern of a male magician (played by Méliès himself) who is “to perform feats of wonder upon a female subject” (1979, p30), which may conform to the basic setup of a controlling male and an objectified female that the "male gaze" reading of narrative cinema describes. However, the idea of “attractions” itself, “does not see sexual difference as the motive for cinematic spectacularisation”
(Williams, 2004, p1268, quoting Petro 2002, p170). The concept of the cinema of attractions focuses on the spectacular. In fact, when Gunning points to an "extreme" example where film theatres would extract specific sequences taken from moving vehicles (especially trains), arrange the theatres as train cars with conductors inspecting tickets and add sound effects would further enhance the experience of actually being on board a train, he compares such viewing experience with "the attractions of the fairground" (2002(1986), p383). Gunning argues that "the relation between films and the emergence of the great amusement parks, such as Coney Island, at the turn of the century provides rich ground for rethinking the roots of early cinema." (p383) And that brings us neatly back to my own experience at Mickey's PhilharMagic.

Gunning's mention of Coney Island refers to Maxim Gorky's 1906 visit there. Gorky describes the Coney Island amusement park as "a slavery to a varied boredom" and only fed into the "need for thrills in an industrialised and consumer-oriented society." (Gunning, 1989, p126, quoting Gorky, 1907, p311-312) This dynamic between thrills (or 'shock'), boredom and a modern capitalist society parallels the work of Siegfried Kracauer and Walter Benjamin. Incidentally, this portrayal of Coney Island of 1906 is reminiscent to the Hong Kong Disneyland. Announced in 1998 and opened in 2005, Hong Kong Disneyland was once hailed as a "millennium dream come true" in 1999 but was criticised for being "disrespectful" to the locals and "exploitative" of them, and as "crass proponents of Americanism" since its opening (Choi, p383-384). Gunning cites Gorky's experience at Coney Island because he finds one particular attraction there, the Leap Frog Railway, a perfect example to demonstrate that the similarity between the cinema of attractions and the attractions in an amusement park. In Leap Frog Railway, "two electric cars containing as many as forty people were set towards each other at great speed on a collision course. Just before impact one car was lifted up on curved rails and skimmed over the top of the other."(p122) Gunning finds Leap Frog Railway, as well as other theme park rides, especially roller coasters, "literalised the thrill of The Arrival of a Train" because they both, from the outset, have the spectators/participants reassured that they are safe from any physical harm. Furthermore, what prompts Gunning to compare cinema's 'founding myth' with Coney Island's Leap Frog Railway is that the subtle difference between a negative response (fear) and a positive one (thrill). Gunning insists that the audience response induced by the oncoming train (whatever it may be — "shadow" or real) must be a positive one. Hence, the negative response of running away in fear, for Gunning, was practically impossible to have happened. The reason for Gunning's assertion that the audience
response must have been a positive one, following the tradition of socio-ideological commentary by Gorky, Kracauer and Benjamin, the audience who reacted to the sudden movement of the projected images was there to seek pleasure (in the form of Benjaminian “shock”) for their “daily experience [had] lost the coherence and immediacy traditionally attributed to reality” in the modern capitalist society. “This loss of experience creates a consumer hungry for thrills.”(p126)

The panic before the image on the screen exceeds a simple physical reflex, ... astonishment and knowledge perform a vertiginous dance, and pleasure derives from the energy released by the play between the shock caused by this illusion of danger and delight in its pure illusion. The jolt experienced becomes a shock of recognition. Far from fulfilling a dream of total replication of reality - the *apophantis* of the myth of total cinema - the experience of the first projections exposes the hollow centre of the cinematic illusion. The thrill of transformation into motion depended on its presentation as a contrived illusion under the control of the projectionist showman. The movement from still to moving image accented the unbelievable and extraordinary nature of the apparatus itself. But in doing so, it also undid any naive belief in the reality of the image. (p129)

Therefore, the attraction in the “cinema of attractions” refers to one that induces thrill and excitement, like the attraction in amusement park rides — roller coasters, the Leap Frog Railway, or Mickey’s PhilharMagic. Gunning’s use of the term “attractions” comes from Sergei Eisenstein’s “attempt to find a new model and mode of analysis for the theatre ... which would undermine realistic representational theatre” (2006(1986), p384)\(^\text{14}\). Similarly, the attraction in early cinema is something *other than* narrative, or the “reality effect” that Bazin believes to be the goal in trying to chase the myth of total cinema. In early cinema, the spectator actively knows the screen projection is not real, and they are there simply for seeking thrills and pleasure. In fact, this mechanism of thrill seeking and pleasure enjoyment, while similar to that in amusement park rides, is reminiscent to that in a magic trick performance.

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\(^{14}\) See Eisenstein, S.M., “How I Became a Film Director,” *Notes of a Film Director*, Moscow: Foreign Language Publishing House, n.d., p16
Cinema as magic

When a magician appears to saw a person in half, nobody in the audience in their right mind would think that the person is actually being sawn in half. And yet, the sight of half a person being separated from what looks like the other half of the same person is still thrilling to witness. There seems to be an incoherence between what is thought (“we are watching a trick”) and what is seen (the upper body of a person is not joined by a lower body). George Méliès is famously said to have exclaimed “What a great trick! That’s for me!”15 In Hugo, we see a kind of reenactment of Méliès’s moment of revelation. Méliès (Ben Kingsley) does not exclaim “what a great trick!” like the real Méliès did. Instead, as a voiceover, he recounts his first experience of Lumières’ cinematograph saying "I fell in love with their [the Lumières’] invention. How can I not be part of it? It was like a new kind of magic!", which has a similar effect, if not more emotional and dramatic, to the original quote. As mentioned before, as a largely fictional film, this scene of "reenactment" in Hugo conflates Méliès’s first experience of the cinematograph with cinema’s ‘founding myth’. However, Méliès’s opinion of the cinematograph is real — he likened the cinematograph to magic tricks, which is a natural association, given his career prior to being a filmmaker was a stage magician. Some celebrated filmmakers throughout the history of film have also compared magic to cinema. Orson Welles said, “I’ve never been excited by movie as movies the way I’ve been excited by magic or bullfighting or painting." (Combs, 1994, p50-52) implying that, for Welles, in order to make a film exciting it would have to be more like "magic or bullfighting or painting". Meanwhile, Ingmar Bergman recounts his reactions to his first ever film projector, which he received as a ten-year-old. It was a “rattling film projector, with its chimney and lamp” which he found "both mystifying and fascinating." He continues:

The little rickety machine was my first conjuring set. And even today, I remind myself with childish excitement that I am really a conjurer, since cinematography is based on deception of the human eye. I have worked it out that if I see a film which has a running time of one hour, I sit through

twenty-seven minutes of complete darkness - the blankness between frame. When I show a film I am guilty of deceit. I use an apparatus which is constructed to take advantage of a certain human weakness, an apparatus with which I can sway my audience in a highly emotional manner - make them laugh, scream with fright, smile, believe in fairy stories, become indignant, feel shocked, charmed, deeply moved or perhaps yawn with boredom. Thus I am either an impostor or, when the audience is willing to be taken in, a conjurer. I perform conjuring tricks with apparatus so expensive and so wonderful that any entertainer in history would have given anything to have it. (Bergman, 1960, p14-15)

In fact, Méliès did. Just as the film Hugo has portrayed, Méliès, the magician, loved this new ‘magic’ so much that he gave everything to forging a new career as a filmmaker. Above Méliès’s predilection for magic, cinema is itself a magic trick. The movement the spectator sees on screen is nothing but an illusion, a sleight of hand that rapidly projects a series of still images at 24 frames per second. Firmly belonging to the “cinema of attractions”, the cinema of Méliès is purely to showcase the magic trick that is the cinematic illusion of movement. Méliès remarks:

As for the scenario, the “fable,” or “tale,” I only consider it at the end. I can state that the scenario constructed in this manner has no importance, since I use it merely as a pretext for the “stage effects,” the “tricks,” or for a nicely arranged tableau.16

Like a true “cinema of attractions”, the ‘narratives’ in Méliès’s films are there to support his many magic tricks that he plays, rather than the other way around such is the case in the “cinema of narrative integration”. Even Méliès himself sees that narrative “has no importance”. The attraction is clearly Méliès’s magic tricks. One of Méliès’s most used “trick” (or editing technique for us) is the substitution trick. Also known as the stop-camera technique, in which the camera stops filming until objects before the desired transformation are swapped with ones after transformation, then the camera films again, creating an illusion that a transformation happens instantly, as if by magic (or as magic in some cases). Escamotage d’une dame chez Robert-Houdin (The Conjuring of a Woman

at the House of Robert-Houdin, or The Vanishing Lady, 1896) is credited “as displaying the director’s first use of [the] cinematic ‘substitution trick’” (Hammond, 1974, p30; quoted from Fischer, 1979, p40). In the film, Méliès, as Robert-Houdin, walks out of a door, bows to the direction where the camera as if to an audience, and then brings a woman (his wife, Jeanne) out. In fact the whole set up could only be described as ‘a recorded magic performance’, certainly conforming to Gunning’s "cinema of attractions" rather than a primitive form of narrative cinema. After a bit of magic-show formalities —placing a magic carpet beneath a chair and showing the chair is just an ordinary chair — Robert-Houdin/Méliès then invites the woman to sit on the chair, over whom he then covers with a large blanket. When the blanket is lifted, the woman is gone and the chair empty. He then conjures up a skeleton to appear suddenly on the chair. Finally, he puts the blanket over the skeleton and when it is lifted the woman is now back in the chair. The two bow and leave through the door. They then come back out from the door to take a bow again, as per theatre conventions. The Vanishing Lady would make the perfect example for Gunning’s “cinema of attractions” for its compliance with theatricality. As for the substitution trick, the modern-day eagle-eyed viewer would be able to spot where Méliès has cut the film to perform the supposed ‘vanishing trick’. In his later, and arguably most famous, film, Le Voyage dans la Lune (A Trip to the Moon, 1902), the substitution trick is much more perfected. In the first scene when the group of men appear to be having a heated discussion, some are given telescopes which are instantly transformed into stools on which they sit. Later, on the moon, stars appear above the sleeping astronauts which are instantly turned into mythical deities, who create snow. When the astronauts encounter the moon’s inhabitants, they attack them by hitting them with their umbrellas, the ‘moon people’ instantly vanish with an explosion. All these are the results of using the substitution trick which Méliès claims to have discovered one day in 1896:

One day, when I was photographing as usual in the Place de l’Opéra, the camera I used in the early days (a primitive thing in which the film tore or frequently caught and refused to advance) jammed and produced an unexpected result. It took a minute to disengage the film and to start the camera up again. In the meantime, the passers-by, a horse trolley and other vehicles had, of course, changed positions. When I projected the film strip, which I had glued back together at the point of the break, I suddenly saw a Madeleine-Bastille horse trolley change into a hearse and men become women. The substitution or stop-camera trick had been
discovered. Two days later, I produced the first metamorphoses of men into women and the first sudden disappearances which, in the beginning, had such great success. (from Gaudreault, 2007, p170\textsuperscript{17})

Whether Méliès has genuinely discovered the trick by accident all by himself is itself a topic of contention, as Gaudreault points out that the same trick ‘had already been used on at least two occasions by Edison operators, in August 1895’ (ibid.). However, like cinema’s ‘founding myth’ which as I have demonstrated is better understood as a platform for knowledge in the ‘bigger picture’ (be it Metz’s fetishistic spectator, or Gunning’s “cinema of attractions”), Méliès’s use of the substitution trick shows us that one of the ‘attractions’ in the “cinema of attractions” is that of a magic trick. The substitution trick has the same visual effect as when a magician makes a flower disappear in his hat and pulls out a rabbit instead. The difference is that while the magician uses some sort of trap door mechanism, Méliès utilises the fundamental mechanism that makes the cinematic illusion of movement possible — projection of a sequence of individual still photographs with gaps (which separates consecutive frames), which Méliès takes full advantage of. The magician masks over the displacement in space (the flower and the rabbit are moved to different places), meanwhile, Méliès conceals the displacement in time (he erased the time the swap took place, by cutting the film, so that it looks instantaneous).

Laura Mulvey positions the appeal of the cinema of Méliès (and of magic shows, for that matter) in our persistent “irreducible core of human irrationality” (2006, p34) which, as she explains, used to find its home in superstition and religion before the Enlightenment, but had to manifest somewhere, in culture, in the face of modernity since the late 19th century. Mulvey then refers to Freudian psychology, whose purpose is “to recognise that the irrational was intrinsic to human reason, ‘housed’ in the unconscious” (ibid.). Indeed, as we shall see in Chapter 4, I would argue that Freud’s psychology should be, first and foremost, as an attempt to understand the tension between the rational and the irrational, or, between the logical and the illogical, as I have referred to in the Introduction and also alluded to in this chapter. Meanwhile, if we recall, in the Introduction, the illogicality that the Kung Fu Panda series bring which is dressed up to appear perfectly logical, there is clearly the same kind of tension between the logical and the illogical in

Méliès’s films and in magic shows; or both, if we consider them one and the same. Mulvey characterises such “cinema of attractions” as a result of the gathering together and the streamlining “its prehistory of illusion and deception by means of ‘natural magic’, giving modernity a perfect site on which to play out the continuing dramas of reality, the unconscious and the imagination.” (p34) For Mulvey, and Mary Ann Doane (2002), the advent of cinema stood at the turning point between an olden time — before the late 19th century — and modernity — the 20th century. For Doane, the shift is in the understanding of time, in science and in the capitalist society, that started to rationalise contingency, which, at face value, appears irrational (p10). As we shall see in Chapter 5, this shift happened because of the rise of a new way of thinking — ‘statistical thinking’. For Mulvey, the struggle between the rational and the irrational happens in our minds; and, at the historic shift which was the turn of the 20th century, the arena in which such struggle moved from old superstition to magic shows, and then, thanks to Méliès, to cinema. Ian Christie has noted

... death was not final: that communication with ‘the other side’ was possible... So the respectable Victorians threw themselves into spiritualism, seances, tarot cards and magic of any kinds. In this climate it was scarcely surprising that moving pictures seemed supernatural to their first viewers. Both the Paris papers which reported the first Lumière show ended on the same note: ... death will cease to be absolute ... it will be possible to see our nearest alive again long after they have gone. (Christie, 1985, p111; quoted from Mulvey, 2006, p46)

The magic trick, then, seems to be one that brings the dead back to life. Even Maxim Gorky has compared the ‘shadows’ that he saw on the projected screen with “curses and ghosts, evil spirits that have cast whole cities into eternal sleep come to mind and you feel as though Merlin’s vicious trick had been played out before you.” (Mulvey, p36, quoting Taylor and Christie, p25-26) The makers of Hugo seem to recognise cinema as a magic trick of bringing the dead alive by placing a solo piano rendition of Camille Saint-Saëns’s “Danse Macabre” as the background music for both of its reenactment of the cinema’s founding myth. Even Bazin, when he describes the ontological function of the photographic image, he first compares it with the embalmment of the dead as “preservation of life by a representation of life” (p10), as “a mummy complex” that provides
“a defence against the passage of time” satisfying “a basic psychological need in man for
decision is but the victory of time.” (p9)

Mulvey takes the concept of cinema as bringing back the dead to a larger picture. She
describes three phases that make up the history of the reception of Lumières’ film. The
first phase is what I have delineated above, as a magic trick that is seemingly capable of
bringing back the dead. The second phase is the rise of the Surrealist movement, where
Surrealists see the ‘reality effect’ as banal. The third phase is the most interesting, as it
seems to bring us back to the first. It refers to now, “after more than a hundred years, the
further passing of time has created a third phase and that very reality has become the
source of uncanniness.” What we can see as moving and seemingly alive are in fact
“ghostly images of the now-dead resurrected into the appearance of life”. (2006, p37) The
“uncanniness” is, of course, from Freudian psychology. Mulvey has pointed out the
difference between the Freudian concept, which refers to seeing the ‘old and familiar’, and
a similar one by Ernst Jentsch, which refers to the ‘new and unfamiliar’18. The two
“uncanniness” in fact point to slightly different scenarios. Jentsch’s concept of
uncanniness coming from the ‘new and unfamiliar’ finds its place in the automata, which
is inanimate but moving. It aligns with Mulvey’s “first phase,” when the historical audience
first experienced the cinématographe. It is a ‘technological uncanny’ (p42) in that the
spectator, faced with a new and unfamiliar technology, is caught between knowing they
are being fooled and not knowing how they are fooled, resulting in the internal struggle
between rational and irrational. This is in line with the experience of a magic show, where
the spectator knows it is a trick, but can never work out how the trick is being done,
resulting in astonishment. Freud’s uncanny corresponds to Mulvey's third phase, where it
concerns the real death of old and familiar people being projected on the screen. We can
easily relate to such “uncanniness” when we see some of the stars who have just recently
passed away, such as Robin Williams, Alan Rickman or Heath Ledger. We can clearly
still see them moving and alive on screen today, but we know they are no longer with us.
That, to a certain degree, is a statement of contradiction, a struggle between rationality
and irrationality. As Mulvey puts it,

Now the cinema seems closer to Freud’s uncanny of the old and
familiar … Fiction, stars and glamour… while they still move with the same

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mechanical exactitude, acting out the uncanniness of Jentsch’s automata, they belong to a world that has been relegated to the distant past by time and in cinema to its history. To look back into the reality of that lost world by means of the cinema is to have the sensation of looking into a time machine. However clichéd the concept, the presence of that reality, of the past preserved, becomes increasingly magical and uncanny. (p52, my emphasis)

But the concept is by no means “clichéd”. The excitement I felt at Mickey’s PhilharMagic is one of “uncanniness”, the uncanny feeling that is caught between knowing I could never go back to near the end of the 19th century to witness one of Lumières’ screenings and seeing an audience reaction that seemed to mirror one at their screenings. This uncanniness does not come from the tension between being dead and (appearing) alive; this is one between the past and the present, seemingly happening simultaneously. This is time travel. This is a time travel that is made possible by cinema. While Mickey’s PhilharMagic itself may not be considered as cinema as such, it is the converging point of all of the qualities and histories of cinema. It combines magic (as it is even suggested in its title), a mode of delivery that is reminiscent to the “cinema of attractions”, and it is using some of the latest cinematic techniques, namely the latest 3D technologies as well as computer animated graphics. In fact, if the “cinema of attractions” is a type of cinema that focuses mainly on its qualities of being an attraction, then Mickey’s PhilharMagic is an “attraction of cinema” — it is an amusement park attraction that focuses on its qualities of being cinematic. And that cinematic quality has led to an uncanny time travel experience.

If cinematic quality can lead to an experience of time travel, then the reverse may also hold true: that time travel is inherent in cinema. Such is the hypothesis that has shaped this thesis. Following André Bazin’s myth of total cinema, which I have characterised as a reverse engineering approach, the next chapter will work backwards from films that already feature time travel. By analysing them, a few issues will be informed of cinema in general, hence working towards cinema’s inherent qualities of time travel.
CHAPTER 2

Wibbly wobbly, timey wimey¹:

Why time travel? What is time? and, the three characteristics of time travel films

“I don’t wanna talk about time travel shit, because if we start talking about it, then we’re gonna be here all day talking about it, making diagrams with straws. It doesn’t matter.”

‘Old Joe’ talking to ‘Young Joe’

Looper (2012)

This chapter sets out to work backwards from ‘time travel’ films to determine the common characteristics between time travel and cinema that have compelled me to embark on this project in the first place. I will first outline the reasons for time travel to be deployed in the cinema, both extra-diegetically and diegetically². Then I shall proceed to delineate the three common characteristics that make these time travel films so fascinating. These three characteristics are complex narrative structures, an aesthetic of repeats, and the cause-and-effect logic that drives characters in the films to engage in time travel. I shall use the Back to the Future films (Robert Zemeckis, 1985-1990) as the main ‘time travel’ films for illustration. The Back to the Future films may be “banal and clumsily made” and do not deserve any rigorous critical analyses (Wittenberg, 2006, p51-52), the time travels featured in these films still remain some of the most elaborate and comprehensive (yet flawed) among all ‘time travel’ films, as these films involve both backward and forward time travels, revisiting the same time periods to interfere (or avoid

¹ From one of the most memorable, and significant, quotes by The (tenth) Doctor (David Tennant), the time-travelling humanoid alien, in the popular TV series Doctor Who. The quote comes from "Blink" (Series 3 Episode 10) first broadcast on 9 June 2007. The Doctor, who is often clumsy with his words, sets out to explain what time is: “People assume that time is a strict progression of cause to effect. But, actually, from a non-linear, non-subjective viewpoint, it's more like a big ball of wibbly wobbly, timey wimey... stuff.”

² Extra-diegetic reasons refer to why filmmakers decide to incorporate time travel into their films, while diegetic reasons refer to the reason for time travel for the characters within the films.
interfering) with other ‘selves’, revisiting the same time periods and accidentally create alternative realities, constituting causal loops, and so on. As examples to illustrate time travel, the Back to the Future films represent some of the best options.

This is a Film Studies thesis that centres around time travel and time machines (although time travel and time machines are only meant as conceptual backdrop for the discussions on cinematic time), naturally, it would be wrong if The Time Machine (George Pal, 1960)\(^3\) does not at least get a mention. It was by no means the first film to portray a time machine; that title belongs to Time Flies (Walter Forde, 1944) (Paul J Nahin, 1993, p22). But the significance of The Time Machine — the 1960 film, and, especially, its source material which is H. G. Wells’s 1895 novel of the same name — cannot be overlooked. Wells’s novel was published in the same year that the Lumière brothers held the first public screening of their cinématographe in 1895; this is yet another one of the several ‘cosmic coincidences’ that are scattered about in this thesis. Wells’s novel arguably popularised the concept of time travel using a vehicle that can be controlled (in varying degrees) by its driver\(^4\), a concept that clearly influenced the DeLorean DMC-12 in the Back to the Future series, The Doctor’s TARDIS (the blue police box) in the TV series Doctor Who, or even the hot tub in a ski resort room in Hot Tub Time Machine (Steve Pink, 2010).

The overlap between cinema and Wells’s novel could have been even more significant than simply ‘being born’ in the same year as cinema and influencing the theme of time travel in films, TV and other mediums. As it happened, shortly after the novel was published, filmmaker Robert Paul reached out to Wells wishing to collaborate on some sort of “cinematic time machine” (Furby, 2015, p248). It was never realised, but if it did, it would have been a form of “cinema of attractions” that would have been staged as a kind

\(^3\) The first ever “moving pictures” adaptation of H G Wells’s The Time Machine was a live teleplay broadcast in 1949 by the BBC. The performance was not recorded, and only some production stills survived. The 1960 film was the first ever cinematic adaptation. It largely followed the novel with a few added ‘updates’. Then a 1978 television film, directed by Henning Schelerup, would drastically change the original story by making the time-travelling protagonist a man from the 1970s, working for U.S. defence. In 2002, Simon Wells, H G Wells’s great-grandson, directed another cinematic adaptation that returned the protagonist back to the original background of 1899 but with an added backstory to the protagonist. I consider the 1978 adaptation to be much inferior to the other two cinematic adaptations, on its artistic merits and its lack of pursuit of Wells’s spirit, and therefore will not be included in much of my discussion in The Time Machine.

\(^4\) The concept was first found in “The Chronic Argonauts”, a short story by Wells published in 1888, and would then be further developed in the 1895 novel.
of vehicle with a ‘conductor’ (see Chapter 1). The spectator would be "presented to their view scenes which are supposed to occur in the future or past, while they are given the sensation of voyaging upon a machine through time." (ibid., quoting Christie, 1994, p28)

If such a cinematic time machine were ever built, I would imagine the viewing experience would be like the time travel experience of George (Rod Taylor) in the 1960 film adaptation of *The Time Machine*. He sits inside his time machine in his home laboratory, and, through the window, he watches the world go by at a lightning quick speed. The flowers on the branches of trees grow from buds to flowers and then to fruits in a matter of seconds. Sunset can be seen just a few seconds after sunrise. The mannequin in the shop window across the street can change its clothes almost instantly. The effect is similar to that when one presses the fast-forward button on a video file, a DVD, or a videotape, although the slight flickering that the 1960 film exhibits during these fast-forward-like sequences makes the analogy closer to the video cassette tape than any digital format. In reality, this effect was made using time-lapse photography⁵. The effect, which still looks impressive today, helped the film win the Academy Award for Best Special Effects in 1961.

Although the depiction of the process of time travel in the 1960 film is inspired by the original novel, there are subtle differences between the film depiction and Wells’s own description. In Wells’s novel, in regards to the process of travelling in the Time Machine, the unnamed Time Traveller recounts what he sees while he is in his time machine travelling through time:

> Mrs Watchett [the housekeeper] came in, and walked, apparently without seeing me, towards the garden door. I suppose it took her a minute or so to traverse the place, but to me she seemed to shoot across the room like a rocket. … The night came like the turning out of a lamp, and in another

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⁵ Time-lapse photography is the technique that takes photographs at relatively long but regular intervals (say, every one minute) from the same vantage point, so that when played back quickly in sequence the resulting photos make a ‘movie’ of things moving very fast. This technique, in principle, is the same as the cinematic illusion of movement itself. The only real difference is in the lengths of the intervals between each individual shots. They are both, effectively, the *reverse* of Étienne-Jules Marey’s chronophotography and Eadward Muybridge’s zoopraxiscope in that Marey and Muybridge broke motion down into individual stills, whereas the cinematic illusion of movement and time-lapse photography create (the sense of) movement by combining a sequence of stills. Incidentally, it could be said that each of Méliès’s ‘cinematic magic tricks’ (Chapter 1) is effectively a time-lapse photography with a sequence of just two shots (the ‘before’ and the ‘after’).
moment came to-morrow. The laboratory grew faint and hazy, then fainter and ever fainter. To-morrow night came black, then day again, night again, day again, faster and faster still. An eddying murmur filled my ears, and a strange, dumb confusedness descended on my mind. (Wells, 2006(1895), p25-26)

As he further describes what he sees during his time travel journey, his surroundings (i.e. his home laboratory in which he steps into his Time Machine) have changed:

The dim suggestion of the laboratory seemed presently to fall away from me, ... I supposed the laboratory had been destroyed and I had come into the open air. I had a dim impression of scaffolding, but I was already going too fast to be conscious of any moving things. The slowest snail that ever crawled dashed by too fast for me. The twinkling succession of darkness and light was excessively painful to the eye. (p26) [my emphasis]

Clearly, Wells’s words are a direct inspiration for the fast-forward-like sequences in the 1960 film adaptation (which would then be the inspiration for the subsequent adaptations). However, unlike the 1960 film adaptation where George is seen sitting comfortably, watching and contemplating on the change of fashion on the mannequins in the shop across the street at an easily discernible speed, in Wells’s original the time traveller is not even “conscious of any moving things” and the visual experience of time travel is “painful to the eye”. In the 2002 remake/adaptation, The Time Machine (Simon Wells, 2002), the fast-forward-like time travel sequence is still present but it is done using computer-generated graphics and at a much higher speed (now without the flickering the 1960 version has but it oddly seems less natural). The much higher speed of the time traveller’s journey renders the fast-moving detail almost indiscernible, which is a departure from the time-lapse sequence from the 1960 film (even though the 2002 film pays tribute to it by including fast changing pictures of women’s fashion in the fast-forward sequence) and seems to adhere closer to Wells’s description. Also, the 2002 version depicts a ‘time bubble’ that surrounds the time machine, creating an inside and an outside, something neither the novel nor the 1960 film has done.

Despite their differences in style, the films adapt The Time Machine do put emphasis on the process of time travel and its visual representation in cinema. Meanwhile, in other
time-travel films, the process of time travel is often either seen as instantaneous or not depicted at all. For example, the DeLorean in the *Back to the Future* series may need to gather the proverbial 1.21 giga-watt of power and reach 88 mph before displacing in time, the transition between the ‘departure’ time and ‘arrival’ time is always seen as immediate and happening in a flash, quite literally (as flashes of bright light accompany the disappearance and the subsequent re-appearance of the DeLorean). In *The Terminator* (James Cameron, 1984), the two time-travellers, Kyle Reese (Michael Biehn) and the Terminator (Arnold Schwarzenegger), suddenly appear out of thin air after some flashes of light. Their time travel journeys are not seen. In other cases, the process of time travel is ‘glossed over’ by the time-traveller’s sleep, making the exact moment at which time travel takes place ambiguous (as in *Somewhere in Time* (Jeannot Szwarc, 1980) and *Groundhog Day* (Harold Ramis, 1993)). There are, of course, exceptions. The most notable cinematic depiction of the process of time travel is arguably the ‘Star Gate’ sequence in *2001: A Space Odyssey* (Stanley Kubrick, 1968), which, ironically, is not a ‘time travel’ film *per se*, at least not in the ‘conventional’ sense. The models of time and time travel that I am building in this chapter will put into perspective what these different depictions of time travel might mean to the conflict between the logical and the illogical that can make or break time travel as a concept or in practice.

Time travel works as a platform on which I am setting up discussions of cinema in general. This is the next step in my ‘reverse engineering’ project: from the three common characteristics — narrative structure, repeats, and cause-and-effect — I intend to work further backwards to cinema *in general*, edging closer, back towards finding the justification for my initial outlandish hypothesis: *the time machine will be the ‘ultimate’ cinema*. As Elena Del Rio (2001) explains, “the theme of time-travel is metaphorically linked not only with the question of narrative as a temporal unfolding of events, but also with cinema’s ontological capacity for transporting the spectator into a different spatiotemporal dimension.” (p383) Time travel, as a concept, for me, can be transcended into a metaphor for cinema. However, before time travel can be transcended into such a metaphor, there will be some “wibbly wobbly, timey wimey stuff” needed to be taken care of, i.e. time travel itself.

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Why time travel?

1. **Extra-diegetic reasons: as socio-cultural commentary**

Most ‘time travel’ films fall under the category of Science Fiction, in which they form a subgenre. Time travel as a narrative theme, according to Sean Redmond (2004), “has an ideological function because it literally provides the necessary distancing effect that science fiction needs to be able to metaphorically address the most pressing issues and themes that concern people in the present.” (p114) Like the use of extraterrestrial lifeforms, AI (artificial intelligence) robots and presently non-existent futuristic technologies in Science Fiction, many time travel films use time travel as a ‘decoy’ so that the problems and anxieties about the present time can be projected onto a different time, be it the past as nostalgia, or the future as hopeful or (more often) pessimistic outlook. In the Introduction, I have pointed out that the 80s was a “decade of replays,” and that it is humorously portrayed in one of the scenes in *Back to the Future* (1985), where Marty McFly (Michael J Fox) first sees the rerun of one episode of *The Honeymooners* in 1985 for the first time and then sees its original broadcast in 1955 as a “rerun” for him. This whimsical reversal of the original and the repeat will be one of the main themes that shroud the remainder of this thesis. The *Back to the Future* films use their time travels to 1955 (BTTF 1, 2), 2015 (BTTF 2) and 1885 (BTTF 3) to project onto these different times humorous commentaries on the sociopolitical conditions of the 80s, when the films were made and where Marty’s ‘main’ timeline lies. These films are “regularly mentioned by theorists as an epitome of 1980s American culture, and of the retrograde outlook of the Reagan era” (Wittenberg, 2006, p52). Reagan, who was the President of the USA from 1981 to 1989, finds himself at the centre of a couple of the jokes in the *Back to the Future* films. In the first film (released in 1985 when Reagan had just been elected for a second term), Doc (Christopher Lloyd), of 1955, sceptical about Marty’s claim that he is from 1985, asks Marty who would be president in 1985. Upon hearing Marty’s answer, Doc is even more convinced that Marty is a fake, as Reagan was still an actor at the time. It is as if the film jokingly asks its audience a “who would have thought?” question regarding their current political state. Meanwhile, in the second film (released in 1989 when Reagan just left office), Reagan appears as one of the virtual waiters — an artificially generated image on a TV screen that provides automatic but contextual responses to customers — at the Café 80s in 2015, where it is Lou’s Café in 1955, Lou’s Aerobic Fitness Centre in 1985 and Palace Saloon in 1885, all of which roughly reflect the nature of the social gathering
place in these different times. Since the *Back to the Future* series was made in the 80s, portrayals of both 1955 and 1885 could rely on historical references if the filmmakers so wished; however, for the portrayal of 2015, which was some 30 years away, the filmmaker could only let their imagination fly. We may now ridicule on the farfetched predictions on the technology (though these predictions may very well be playful and deliberately exaggerated), where there are ‘hoverboards’, ‘power laces’, precise ‘weather service’ and flying cars, the choice of making the street corner establishment as the quirky but also futuristic Café 80s, which Doc has described as “one of those nostalgia places but not done very well”, was nothing short of extraordinary. The Café 80s has apparently accurately predicted the ‘retro fad’ that the 21st century has found itself in so far. Of course, it could also have been a displacement of their awareness that the 80s was itself a “decade of replays” replaying and reusing television programmes, films, and even its film stars (in Ronald Reagan) from the 50s — it also stood to good reason that people in the 2010s would be replaying and reusing things from 30 years previously. It worked as a parody for their present time, as well as a playful prophecy for the future. And they were absolutely right: I first watched the *Back to the Future* films as television reruns in the 2010s! If someday I happened to time travel back to 1985 and told someone, who was about to go to the cinema to see *Back to the Future*, that I had already seen its rerun on television countless of times, it would have truly made our cyclical culture of reruns and the ‘retro fad’ complete in full circle. The 2015 in *BTTF 2* also sees the fictional film *Jaws 19* released in their ‘Holomax’ cinema. Above the front billboard of the cinema a holographic projection of an extremely large, but reasonably fake, shark appears and charges towards Marty. For my purpose and within the context of this thesis, this particular scene resonates with cinema’s ‘founding myth’ discussed in Chapter 1. Marty screams and braces himself as the holographic shark approaches, bites Marty’s head and then

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6 As explained in my discussion of *Hugo* (Martin Scorsese, 2011) in Chapter 1, fictional work that borrows the use of historical facts and figures does not necessarily need to be aligned with *actual* history. The point here is that filmmakers have the recourse to *actual* history as reference for their varying balance between accuracy and creativity.

7 The ‘retro fad’ I am referring to is the recent trend which is a clear manifestation of Baudrillard’s hyperreality and simulacra, most visible in the recent rise in popularity (or ‘revival’) of vinyl records, typewriters, film photography, 70s/80s music, etc, that appear to only retain the appearance of the original, without any *actual* historical basis (or the ‘spirit’). *While We’re Young* (Noah Baumbach, 2014) offers an interesting insight into this trend. In one scene, a young twenty-something Jamie (Adam Driver), born in the late 1980s, ‘recounts’ watching an old 1970s advert of Cookie O’Puss, and this angers the forty-something Josh (Ben Stiller) who believes he is the one who has genuinely watched and experienced the actual advert when he grew up, unlike Jamie who has only ever seen it on YouTube as “some funny old kitschy thing” that has no meaning.
disappears. Marty recovers and says to himself, “(The) shark still looks fake,” as if he has not been frightened by the shark’s image at all, a response that is more in line with Metz’s disavowing spectator (see Chapter 1). Also, the Jaws franchise signals that the 80s were also a ‘decade of sequels’. The fact that the filmmakers picked a humorously large number for the fictional Jaws film, as well as the tagline seen on the front billboard that says “This time it’s really really personal” which mirrors the tagline for Jaws: The Revenge (Joseph Sargent, 1987), is an indication that they were ridiculing the excessive sequels of the Jaws franchise. Interestingly we find ourselves in the 2010s, yet again, in a similar situations with countless sequels, and even ‘reboots’. We may not have flying cars or Jaws 19 in our reality, but we do have Jurassic World (Colin Trevorrow, 2015), Terminator Genisys (Alan Taylor, 2015), The Jungle Book (Jon Favreau, 2016), and so on. Looking back at the 80s through the Back to the Future series, one cannot help but feel that time has been running in a circle, or even a Möbius strip, where the 80s and our present time are on different sides of the paper but are connected as one continuous surface.

While the future seems peaceful in Back to the Future Part II (except for the McFly household where Middle-aged Marty gets fired and his son, Marty Jr, gets into jail before Doc’s and Marty’s time-travelling meddling), it is usually depicted with a much more pessimistic disposition. The Time Machine (in both the novel and the film adaptations) describes the very distant future of 802,701 AD as a world inhabited by descendants of the human race divided into two extreme castes: the ignorant and submissive Eloi and the powerful and savage Morlock. Engineer Paul J Nahin considers the novel, written in 1895, a parody to the “smug optimism of the Victorian age” and a somewhat Marxist projection on the class struggle which sees the working class in the Morlock subjugating the “idle, parasitic” upper class in the Eloi (Nahin, p144). However, Wells’s opinion on Marxist ideas is in fact much more nuanced in his novel. The unnamed Time Traveller initially mistakes the Eloi as living in what he believes to be a communistic society that is the result of “the subjugation of Nature” (Wells, p38) which, he thinks, leads to the cessation of the “institution of the family” that demolishes gender inequalities, the valuing of physical strength, the need for individual houses, etc. (Wells, p36). Similarly, in the 1960 film adaptation, the time traveller, George (Rod Taylor) first believes that the world in 802,701 AD is a paradise with all “work and hardship forgotten” and “an economy so well-developed that [they] can spend all [their] time studying and experimenting”, which seems to fit Marx’s ideal of a communistic society. However, in both the novel and the 1960 film, the time traveller is then proven wrong when he learns the horrific truth about the
backwards civilisation of the hopelessly ignorant Eloi and the cannibalistic Morlock. Wells's 1895 novel is a commentary on the social development of his time. While Wells appears to wish for the Marxist ideal to come true, he believes that the future in reality would be grim, as in his fictional 802,701 AD, if humanity were to continue down the path they were pursuing. The ‘path’ in question is one of scientific progress. In Wells’s writing, one could see that he opposes the idea of scientific progress, which sees science as a means to tame Nature, and believes that the advancement of humanity should result in humans being more at one with Nature (see Nahin p144-145). Wells’s spirit translates rather well in both the 1960 and the 2002 film adaptations. While in Wells’s original it is not clear as to why humanity will eventually be split into the Eloi and the Morlock. What the film adaptations can afford to do, in tribute to Wells himself, is to ‘update’ on Wells’s vision and provide justification for what is essentially Wells’s prophecy. In following Wells’s philosophies that the eventual splitting into the Eloi and the Morlock is the result of a misunderstood relationship between science and nature — that science can tame nature, both the 1960 and the 2002 film adaptations provide fictional scenarios for the clash between science and nature to manifest in irreparable fashion, as Wells has feared. This is done in the form of nuclear warfare in the 1960 film and a failed attempt at occupation of the Moon in the 2002 film. And, while doing so, these films also provide insights as to how their filmmakers project their attitudes towards their respective times onto a time travel narrative.

Being made in 1960, the first cinematic adaptation of The Time Machine could afford to ‘update’ the original story by inserting a few ‘stops’ for the time traveller (unnamed in the novel, named George in the 1960 film) to hop off his time machine, hence projecting the filmmakers’ attitude towards their recent past dominated by the two World Wars that Wells could not have foreseen in the late 1890s (even though the Time Traveller’s disdain for “physical courage and the love of battle” (Wells, p39) seems to be a manifestation of Wells's own anti-war disposition towards the wars that happened before the novel’s publication). In the 1960 film, George (Rod Taylor), from 1899, witnesses the two World Wars from his time machine, something the original character does not do in the novel. He first stops at 1917. Unlike Marty who exhibits a Metz-like audience reaction to the holographic shark, George is positively fascinated by the sight of an oncoming car on the street (as cars would not be ubiquitous until the release of Ford’s Model T in 1908). George mistakes the man who gets off the car as his friend back in 1899, David Filby (Alan Young), but the man (also played by Alan Young) tells George that he is in fact David’s son, James,
and that David has been killed during "the war". Devastated, George continues onwards on his time machine and stops at 1940. He first thinks "the war" he learned about in 1917 is still going on after 23 years. He soon realises that it is "a new war". He travels further into 1966, like 2015 in Back to the Future Part II, the film enters into its imaginary future. There, George finds himself in the middle of yet another World War, a nuclear war that can annihilate everything in an instant. For the 1960 film, this fictional "Third World War" is the catalyst that leads to humanity splitting into the Eloi and the Morlock. This interlude of the three World Wars is not in the original novel, as Wells had not witnessed any of the World Wars yet. The fictional, then-possibly prophetic, "Third World War" is an extension of WWII which was effectively ended by the dropping of nuclear bombs in Hiroshima and Nagasaki. Nuclear weaponry may have ended the war, but it has left a lasting effect of fear in people's minds till the end of the Cold War (but arguably still going on today). In The Time Machine (1960), the first two World Wars reflected actual history and allowed the viewer at the time to ponder over the devastating effects that were still carried forward to their recent history, while the fictional "Third World War" acted as a warning, or a plea from the filmmakers that hoped such a depiction would not become a reality like the first two World Wars have. Viewed today, while one may be relieved in the knowledge that a "Third World War" did not break out in 1966, they may still fear that the 'prediction' of a "Third World War" may have merely been delayed and may eventually happen in light of our own recent history.

Meanwhile, in the 2002 adaptation/remake, while the time-travelling protagonist is also from 1899, as in the 1960 film as well as Wells's novel, he has a different name, Dr Alexander Hartdegen (Guy Pearce), and his forward time-travelling journey skips over the entire 20th century and arrives at the year 2030, which is also in the future relative to the film, just as 1966 is to the 1960 version of The Time Machine, or 2015 is to to the Back to the Future series. The fact that the 2002 film skips over the two World Wars may suggest that the effect the two wars had in our collective psyche was not as strong at the turn of the new millennium than in 1960. But the 2002 film points to other areas of our history which more appropriately characterises the 21st century so far. Yet again we see references to what I have alluded to as the 'retro fad'. When Hartdegen arrives at 2030, he meets a passerby who compliments his Victorian suit as "very retro", which confuses Hartdegen for a short while before he realises that it is a compliment. He then visits a library, where we find the depiction of an imaginary future technology that can also be found in Minority Report (Steven Spielberg, 2002), which, perhaps as yet another cosmic
coincidence, was released in the same year as The Time Machine (2002). In these films, displays are made of nothing but sheets of glass. It is worth reminding ourselves that flat-screen televisions and computer monitors, which have dramatically reduced thickness compared to the cathode ray tube devices that preceded them, only started to gain mainstream traction at the time of these films. These displays made simply of sheets of glass indicate the filmmakers’ projection of how display technologies would develop. In Minority Report, sheets of glass of different sizes are also depicted as hybrid devices of storage and viewing, which stores data as well as allows one to directly glance at its contents on the glass itself. To get a clearer view of the contents, one inserts these sheets of glass into slots of their futuristic computers in order to project its contents onto either their computer monitors (also made of nothing but glass) or as holographic projection in midair. It is curious to note that the only parallel to this imaginary future technology we can find in our existing technology is the film strip (or slides), a form of technology that Cherchi Usai (2001) and Rodowick (2007) have declared dead (see Introduction). The film strip also has a dual function of storage and viewing: the film strip records light hitting on its surface through a lens, and allows one to view the imprints caused by light directly on the film strip itself, although it is difficult to make out the details. To view the imprints by light on the film strip more clearly it needs to be run through a projector to enlarge it, a similar mechanism as the glass storage devices in Minority Report. Meanwhile, in The Time Machine (2002), hybrid storage/viewing devices made of glass are seen being carried by a group of schoolchildren and their teacher on their field trip to the library that Hartdegen finds himself in in 2030. These are thin sheets of glass, about the size of A4 paper, attached to shoulder straps for carrying. They are referred to as “microscans” that needs to be “charged ready for download”. Again, it is fascinating to see a future projection of current technology in ‘time travel’ films: at the time, “tablet PCs” were a small subset of the laptop computers which were extremely bulky and largely unsuccessful, a far cry from the tablets and ‘hybrid computers’ we have today. Of course, one of the first notable depictions of the tablet computer as an imaginary future technology is to be found, again, in 2001: A Space Odyssey, in Arthur C. Clarke’s creation, the ‘NewsPad’. It is uncanny to think that the imagination of these filmmakers and writers are effectively realised in the tablets and ‘hybrids’ we have today. In the library in The Time Machine (2002), large sheets of glass are also used to project the image of the VOX system (Orlando Jones), an AI library catalogue interface that takes the form of a human who exhibits natural emotions and dialogue. It is in here that the 2002 film shows what James Chapman (2011) describes as “the tendency towards a sense of self-awareness regarding [its] source
materials and a postmodern strategy of pastiche and quotation" (p25), perhaps the flip side of what I have described as the ‘retro fade'. The film creates a kind of *mise en abyme* when VOX speaks of H. G. Wells’s novel and George Pal’s 1960 film adaptation, on which the film itself was based, as well as a fictional stage musical adaptation by Andrew Lloyd Webber, who clearly has not (yet) written such work. Rather than causing a collapse of the reality the film has created (its diegetic world), as Richard (Christopher Reeve) has done in *Somewhere in Time* (Jeannot Szwarc, 1980) as he pulls out his 1970s coin from his pocket in 1912, the merging of reality and the fictional world, as well as intertextual and diegetic worlds (and not to mention the director is H.G. Wells’s great-grandson!), adds multiple layers of intrigue to the viewing experience.

The 2002 film may not have included the two World Wars as the 1960 film did. However, it also sets up an imaginary scenario that ultimately causes the same splitting of the human race into the Morlock and the Eloi as the 1960 film and the original novel. Failing to find an answer he is looking for from VOX, Hartdegen continues his forward time travel journey. He is forced to stop at 2037 due to catastrophic destructions on Earth that stop his time machine momentarily. He learns that the moon "is breaking up" as a result of a failed "demolition of the lunar colony". The destruction of the moon damages its orbit, which in turn has a knock-on effect on the earth, causing massive destruction of the planet. Such is the backdrop for the eventual splitting into the Eloi and the Morlock for the 2002 film. Unlike the 1960 version which expresses a concern for a possible outbreak of a third World War, the 2002 version raises environmental concerns which were more prevalent at the time (as demonstrated in *The Day After Tomorrow* (Roland Emmerich, 2004) which was an adaptation of a 1999 novel, *The Coming Global Superstorm* by Art Bell and Whitley Strieber that warns of the catastrophic effects of global warming). Recalling the “same but different” theme that I have been alluding to, these backdrops, while different on the surface, are both portrayed as the direct result of science ‘going too far’, and, more importantly, represent Wells’s original spirit about his own concerns of scientific progress rather well. The 2002 version also does one thing that the 1960 version does not do: providing a backstory for the time-travelling protagonist. I shall discuss this further in the next section.

Wells's vision of 802,701 AD certainly fits the description of an apocalyptic future, and, like his use of a vehicle as a time-travel mechanism, apocalyptic future seems to be the common theme for many other 'time travel' films. As with the concern of a possible Third
World War and environmental concerns in the two *The Time Machine* films, other 'time travel' films similarly reflect our constant anxiety about the future that is derived from current situations. In *La Jetée* (Chris Marker, 1962), made just two years after *The Time Machine* (1960), writer/director Chris Marker also put an apocalyptic nuclear war as the backdrop for its future. Very similar to how the Morlock comes to be living underground, in Marker's story, the devastating effect of a worldwide nuclear war (one that recalls *The Time Machine* (1960)) forces the human race to live underground. Then, *12 Monkeys* (Terry Gilliam, 1995) adapts *La Jetée* and changes the nuclear war backdrop to a deadly virus pandemic, which wipes out almost the entire human race, equally as devastating as nuclear warfare.

Meanwhile, in *The Terminator* (James Cameron, 1984), nuclear war is also in the film's apocalyptic future. While nuclear warfare itself can already be seen as a result of 'science going too far', *The Terminator* brings a layer of technophobia that is more immediately relatable to the fear of 'science going too far', by setting up a scenario where the nuclear war leads to the rise of machines. As we rely more and more on the automation of machines to accomplish a lot of tasks that have been otherwise done *manually* (this cannot be truer today than it was in 1984!), *The Terminator* depicts a future where artificial intelligence machines have got too clever and have decided to wipe out the human race who created them in the first place. Once again, one may turn to Kubrick's 1968 forward-thinking, almost *prophetic*, film *2001: A Space Odyssey* to find the earliest depiction where AI computers (in this case, H.A.L. 9000), use their logical algorithms to deduce that killing humans is the best solution. But while *2001: A Space Odyssey* inevitably makes the portrayal of technology exotic and alluring, as technologies had not yet found their way into everyday lives (save for the television and the electric guitar), at the time of *The Terminator*, technologies have infiltrated into the lives of people and have become so commonplace that they appear banal and unnoticed. As noted by Constance Penley (1986 p68-70), the film has subtly added references to the antagonistic relationship between humans and machines, subtly manifested in the technologies being used by the characters. When the Terminator (Arnold Schwarzenegger), the cyborg assassin that is a computer and machine in an outer 'shell' made of human flesh, steals a car, he rips the dashboard off and hot-wires the engine in one smooth action while, later, when Kyle Reese (Michael Biehn), the mere mortal, tries to do the same thing, it takes him a few tries, and he does it rather clumsily. Then, when the police try to contact Sarah Conor (Linda Hamilton) of her impending danger from the assassin, they can only reach the
answering machine. Later, the answering machine becomes a tool that the Terminator uses to locate Sarah as she leaves a message about her hiding location. The telephone itself also inadvertently becomes the Terminator’s ally when the Terminator adopts the voice of Sarah’s mother to trick Sarah into revealing her location over a phone call, a communication method that enables convenience but makes identification difficult. Sarah's roommate, Ginger (Bess Motta) could have avoided her murder by the Terminator, but she is listening to her Walkman with headphones on and cannot hear the commotion caused by the intruding Terminator. However, technology is not always seen as sinister. When Dr Silberman (Earl Boen), the criminal psychologist, exits the police station while the Terminator walks in, his pager beeps and distracts him, hence it prevents any contact between him and the Terminator, effectively saving him from being killed. However, before this lucky escape, his pager also beeps and interrupts Reese trying to explain his identity as a time traveller. As technology has advanced at a rapid pace, seeing how these ‘primitive’ technologies (such as home phones, the Walkman and pagers) inadvertently act as accomplice to the Terminator, one can see parallels in today to this portrayal of technophobia in the 80s, and speculate that the machines are ‘winning’, especially with our growing dependence on personal computing devices, which relies on varying levels of automation, in our pockets as smartphones, or on our own bodies as smart wearables. In Chapter 4, I will argue that technologies strike again and create a psychological imbalance in us, distorting our experience of our precious time.

2. Diegetic reasons:

As a plot device

*The Terminator* is an interesting example for its use of ‘time travel’. It may appear to be a fascinating tale of backwards time travel, but, after contemplation, one may discover that time travel is nothing more than a simple ‘plot device’ that can be replaced by another plot device that does not involve time travel. David Wittenberg (2013) has observed that time travel is often used as a mere narrative device similar to flashbacks, flash-forwards or simple omissions of events that are not relevant to the narrative. A simple example that one can think of is that one never sees the entire sleep of a character in a film; time has always been manipulated in cinema by means of editing ever since the magic tricks by George Méliès (see Chapter 1). Wittenberg uses a time-travel novel *Up the Line* by Robert Silverberg in 1969 as his example (p3-4). The time-travelling protagonist of 2059, Jud
Elliott, who works as a “Time Courier” in the “Time Service” (reminiscent to the Time Safari Inc. in Ray Bradbury’s famous 1952 short story “A Sound of Thunder”), is trying to get an invitation to a party in Constantinople in 1105. This little episode involves a conversation between him and the chief Courier, Metaxas:

Metaxas, as always, was glad to help.

“It’ll take a few days,” he said. “Communications are slow here. Messengers going back and forth.”

“Should I wait here?”

“Why bother?” Metaxas asked. “You’ve got a timer [their time machine]. Jump down three days, and maybe by then everything will be arranged.”

I [Elliott] jumped down three days. Metaxas said, “Everything is arranged.”

Now let us consider Wittenberg’s own rewritten version:

Metaxas, as always, was glad to help.

“It’ll take a few days,” he said. “Communications are slow here. Messengers going back and forth.”

“Should I wait here?”

“Why bother?” Metaxas asked. “You’ve got things to do. Come back in three days, and maybe by then everything will be arranged.”

I [Elliott] came back in three days. Metaxas said, “Everything is arranged.”

[my emphasis]

Comparing the original version against Wittenberg’s ‘adaptation’, the only differences are the mention of a time machine (the ‘timer’) and the difference in the verbs that describe the journeying of the three days of waiting (‘jump down’ and ‘come back’). Even though I have mentioned a few times already that one of the main themes in this thesis is the “same, but different” aesthetic, this may be one of the rarer instances here that we find something that is “different, but the same”. While one is an attractive narrative that requires the protagonist to engage in time travel, the other is a simple description of a man waiting for three days. However, if this particular scene is to be put on the silver screen,

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the depiction between these two versions would be (almost) the same because of editing. In both cases, the three days would not be in the scene but would be omitted. If the editor decides to omit the depiction of Metaxas operating the ‘timer’ in the time-travelling version, then these two versions would look exactly the same on screen. As Wittenberg explains, there is “very little difference to the structure or coherence of the fiction, even though it may, of course, make considerable difference to the story’s genre.” (p4)

Similarly, the ‘original’ version of *The Terminator* may seem to have the seductive elements of backwards time travel: as the machines are set to lose the battle against the humans in 2029, led by a formidable rebel leader John Connor, the Terminator, the cyborg, is sent back to the year 1984 to kill Sarah Connor, the mother of John, so that history would be changed, John would not have been born and the human army would lose their leader in the future, and lose the battle. Kyle Reese is sent back by the rebel human army to stop the Terminator from killing Sarah, hence protecting John’s existence and ensuring the victory of the battle in 2029. It all seems attractively “timey wimey”, but now consider a non-time-travelling ‘adaptation’ for *The Terminator* in which the ‘original’ time-travelling characters — Reese, the Terminator — *are from* 1984 and none of them is a time-traveller. Considering that the majority of the narrative of *The Terminator* follows in a strictly linear fashion, such an ‘adaptation’ would not change the structure of the film too much, if at all. There may need to be minor changes to some plot points and characters traits for their lack of a time-travelling background: Since the cyborg technology that makes the ‘original’ Terminator possible may not have been available in 1984, we shall change his character simply as an athletic, muscular, but mortal, human being (as Schwarzenegger indeed is in real life) who has extensive firearms knowledge (as demonstrated in an early scene where the Terminator buys many different types of guns that has the shop owner remark “You know your weapons, buddy.”), skills and, perhaps, is wearing a few layers of bulletproof jackets that makes him seemingly invincible. Perhaps “The Terminator” is his nickname as a professional assassin. In place of Skynet, the powerful artificial intelligence system that leads its attempted genocide of the human race and sends the Terminator to kill Sarah Connor, perhaps some rich and powerful person with a vengeance has paid our human assassin to kill Sarah. Perhaps Sarah has somehow unknowingly upset the rich person (as is the case in the actual film where Sarah initially does not know what she has done to deserve being hunted). Perhaps Kyle is a regular at the diner at which Sarah works and is an admirer of hers even before knowing her (as he is in the actual film). Perhaps Kyle overhears the assassination and is keen to
protect her. Just as in the actual film Kyle is unknowingly the father of Sarah’s future son, John, in my imagined adaptation, then, perhaps Kyle is somehow unknowingly related to Sarah in some ways: perhaps he is a forgotten and long-lost brother of Sarah’s, or they may have an unknowing father-and-daughter or mother-and-son relation which can explain their mutual affection. At this point, my adaptation of The Terminator is completely detached from the time travel, or even Sci-fi, genre. But, crucially, the structure and most of the story elements remain similar, if not the same.

While my adaptation of The Terminator is no longer a tale of time travel, the adapted narrative now actually bears striking resemblance to the South-Korean film Oldboy (Park Chan-wook, 2003), which itself is an adaptation of a Japanese manga and also has a direct, almost shot-by-shot U.S. remake in Oldboy (Spike Lee, 2013). In my ‘adaptation’ of a non-time-travelling The Terminator, Oldboy, and the ‘original’ The Terminator, neither of the protagonists know what they have done to deserve their predicament (being hunted and being imprisoned). Also, they all involve an element of incest during the quest of finding ways to get out of their respective predicaments, even in the ‘original’ The Terminator. This perhaps attests to Claude Lévi-Strauss’s (1955) assertion that myths from different cultures share striking similarities which can then be extended to commonalities in structures of different narratives, namely binary oppositions. But what my quirky ‘adaptation’ of The Terminator does show is that time travel is often only used as a plot device which can be substituted by another device while the overall structure of the narrative remains the same. I may have been guilty of deliberately moulding my adaptation of The Terminator to resemble Old Boy, but elements of the Oedipal complex already run through the ‘original’ The Terminator, as noted by Penley (1986). She has noted that the story of the ‘original’ The Terminator is one that depicts the Freudian ‘primal scene’ for the son, John Connor. Freud describes that the primal scene fantasy is a “fantasy of overhearing or observing parental intercourse, of being on the scene … of one’s own conception.” (p72) Subscribing to a strictly psychoanalytic reading, because of backwards time travel, John Connor can actually fulfil his Freudian fantasy and “orchestrate[s] his own primal scene, one inflected by a family romance … because he is able to choose his own father, singling out Kyle from other soldiers.” However, rather than being picked by John Connor, in the film, Kyle explains he has volunteered to travel back in time to meet the ‘legend’ that is Sarah Connor, who is also the mother of his comrade as well as his mentor in the battle against the machines. With a bit of calculation, John is
44 when Kyle is sent back in 2029 to 1984, and Kyle himself is significantly younger. Given the age difference, John Connor, as the leader of the resistance army, must have been a father figure for young Kyle. Penley also comments that Kyle is “considerably younger in appearance than” Sarah Connor. In Penley’s reading, Kyle is “both the father of John [Connor] and, in his youth and inexperience, Sarah’s son, John [Connor].” (p74) Therefore, Kyle can be seen, simultaneously, as John Connor’s son (as John is a father figure in the future), as John Connor himself (as “Sarah’s son” and comrade of John Connor), and as John Connor’s father (as he and Sarah are implied to have conceived John in their intercourse).

This overlapping of three mutually exclusive identities of Kyle recalls the work of Robert A Heinlein, in particular his 1959 story “All You Zombies—” (1961/1959), which was adapted into the film Predestination (Peter and Michael Spierig, 2014). The story features an intersex protagonist who is, at different stages of his/her life, the mother, the father, the lover, and, in the case of the film adaptation, the killer of him/herself. Noted for being a logically ‘perfect’ time-travel story par excellence by David Lewis (1976, p145), Wittenberg (2013, p207-209) and Nahin (1993, p54), “All You Zombies —” is perhaps the best illustration that converges both incest and auto-eroticism in one never-ending causal loop. It is also an indication that for Freudian fantasies, of the primal scene and of ‘family romance’, to be actually fulfilled, time travel is perhaps the only way. Obviously, this is not to say that Old Boy is a time-travel tale (while having declared earlier that 2001: A Space Odyssey is not), but consider applying the same time-travel-as- mere-plot-device trick in reverse: instead of imprisoning the protagonist Dae-su (Choi Min-sik) / Joe (Josh Brolin) for 15/20 years, the avenging wealthy antagonist Woo-jin (Yoo Ji-tae) / Adrian (Sharlto Copley) is rich enough to support the R&D of a time machine. The wealthy man captures the unsuspecting protagonist, puts him in a time machine travelling forwards 15-20 years, and tricks him into having sex with his own daughter who has now grown up. Again, the overall structure of the narrative is, surprisingly, exactly the same. Of course, there is marked difference in the quality of the respective narratives. The most obvious inadequacy

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9 The fan-contributed Wikia encyclopaedia of the film(s) shows that when Sarah meets Kyle in the events of The Terminator (1984), Sarah is only 19 while Kyle is 26. But interestingly, both Linda Hamilton and Michael Biehn were both born in the same year and at 28 when the film was released. (http://terminator.wikia.com/wiki/Kyle_Reese; http://terminator.wikia.com/wiki/Sarah_Connor) Also, on this Wikia, there are speculations and theories that disprove that Kyle Reese is John’s father, which is only implied in the films. (http://terminator.wikia.com/wiki/John_Connor)
of my time-travelling Old Boy is, ironically, the sense of the passage of time: the sense of injustice as a result of the long imprisonment is completely lost with it being skipped over through time travel. However, the time travel version of Old Boy would have made the age difference between the father and the daughter in line with one another, making their mutual attraction more natural and believable.

Connotations of Freudian fantasies are also present in Back to the Future. Both Andrew Gordon (2004/1987) and David Wittenberg (2006, p59-64) notes that the Oedipal complex is being played out in the first instalment of the Back to the Future series. As Marty (Michael J Fox) is failing to successfully orchestrate the primal scene of his parents (symbolically represented by their first kiss at the Enchantment Under the Sea dance), his future mother, Lorraine (Lea Thompson) who is now around Marty’s age, is closer to making incest with her own future son happen. This is a sort of ‘reverse Oedipal complex’, or, as Gordon puts it, Marty becomes a “reluctant Oedipus” (p119). Fortunately, in keeping with the PG rating (Wittenberg, p61), the threat of incest is only carried through as far as the mother kissing her son which somehow ends in a comical tone (as opposed to being painful and horrifying in the case of Old Boy which has arguably depicted a similar scene, albeit more explicitly). Then, as Marty is later on stage performing “Earth Angel” at the Enchantment Under the Sea dance, he witnesses his parents having their first kiss, symbolising the primal scene of his own conception. Gordon goes even further in his psychoanalytic reading and claims that Marty’s subsequent flamboyant playing of “Johnny B Goode” is a celebratory “public masturbation” as well as a “recapitulation of the primal scene” because he “stands in for both father and mother” (p123). It looks like one of the purposes, or effects, of time travel is to fulfil various Freudian sexual perversions: the Oedipal complex, auto-eroticism and the witnessing and participating in the primal scene.

As ‘fixing’ the present

Of course, ‘accusing’ Marty of fantasising, orchestrating and then celebrating his primal scene and family romance is unfair. After all, he does not initiate his time travel in the first place. It should be noted that his time travel is as a result of his life being threatened from being shot by terrorists. Unlike the time traveller(s) in all the versions of The Time Machine, Marty is forced into travelling in time in order to save his life. Upon arriving in the year 1955, he stumbles upon his own father in Lou’s Cafe in the Hill Valley Town Square (where other narratively significant places such as the clock tower and the
courthouse are also situated). Marty’s mother and father, Lorraine and George, have
grown up in Hill Valley, the same town as Marty has 30 years later. Lorraine and George
both have attended the Hill Valley High School, again, the same school that Marty attends
30 years later. Hill Valley is a small town, and by accidentally ending up in Hill Valley in
1955, Marty is bound to run into his own parents. It is simply a case of bad luck. And it is
also a case of bad luck that Marty saves his young future father from being hit by the car
which is supposed to hit him, hence changing the course of history of their parents’
meeting and subsequently falling in love, ultimately threatening Marty’s own existence.
Like his forced time travel, Marty has to re-engineer his primal scene in order to save his
own life. In fact, saving lives seems to be the main reason why characters in the Back to
the Future films engage in time travel. Marty has to save his own life in BTTF by going to
1955. He then attempts to save Doc’s life by returning to 1985 slightly earlier than his
initial departure (although the letter he writes just before he travels back already
accomplishes it). In BTTF2, an alternate timeline has been created, resulting in George’s
death. Marty has to, once again, travel back to 1955 to save his father’s life. This, in turn,
leads to Doc’s accidental time travel back to 1885. Finally, in BTTF3, as Marty finds out
that Doc in 1885 is going to be murdered, he has to travel to 1885, to save Doc’s life.

Time travel also serves as a way for detection, investigation, which also leads to saving
lives in the present. In Minority Report, a loose adaptation of Philip K Dick’s 1956 short
story “The Minority Report”, ‘Precrime’ uses three unusually gifted individuals’ abilities to
see into the future to avoid future murders. While technically not a ‘time travel’ film as
such, the intricate play on the cause-and-effect relationship between the present and the
future, as well as the question of free will, makes the theme of time travel even more
prominent in this film than in many other films in which time travel is depicted (such as
2001: A Space Odyssey). Dèjà Vu (Tony Scott, 2006) and Source Code (Duncan Jones,
2011) both portray similar futuristic systems that allow one to have a limited glimpse into
a time that is not the present time. But unlike Minority Report where the investigation takes
place by looking at the future, in these two films, the investigation looks into the past to
look for clues for the present, not to save lives, but to find the perpetrators of the crimes.
The protagonists of both films are initially tasked to look for clues from the past in order to
find the perpetrators of the respective crimes (both are acts of terrorism which appear to
reflect post-9/11 anxieties). However, upon discovering that these machines of looking
into the past are in fact time machines that allow one to physically travel back into the
past, both protagonists end up travelling to the past and preventing the crimes from happening altogether and saving everybody.

Meanwhile, films such as *The Butterfly Effect* (Eric Bress and J Mackye Gruber, 2004) and *Looper* (Rian Johnson, 2012) are based around characters going back in time, in the hope that fixing particular details in the past would save their deceased loved ones in the present. Many time travel films also employ a similar logic that by travelling in time their present can be saved. In *Bill & Ted’s Excellent Adventure* (Stephen Herek, 1989), future humans in 2688 are blessed with a utopian society created by the legendary peace-inducing music by Bill (Alex Winter) and Ted (Keanu Reeves). However, as Bill and Ted are struggling in their history exam in 1988, their future music career is under threat, hence threatening the existence of their future peace-inducing music, which in turn threatens the peace in 2688. The future humans send Rufus (George Carlin) back in time to help with Bill’s and Ted’s troubles, hence saving their present time in 2688. The films that have been mentioned before — *The Time Machine* (2002), *12 Monkeys* (to a lesser extent, its source material *La Jetée*) and *The Terminator* — all employ similar logic that going back to the past and fixing one detail can repair the present moment. The 2002 version of *The Time Machine* adds a backstory to the time traveller. The time-traveller Hartdegen witnesses his fiancée, Emma (Sienna Guillory), murdered by a mugger right after his proposal to her. It is this traumatic experience that gives him the determination to build a time machine because he believes he can go back in time to save her. He succeeds in building his time machine. He travels back to moments before Emma’s murder and quickly removes her from the scene. Thinking that he has saved her, Hartdegen momentarily leaves Emma out of sight to get her some flowers. Then Emma is hit by a horse carriage and is killed. While Hartdegen is heartbroken, he is more perplexed as to why even having a time machine he still cannot save Emma’s life. This is a question he wants answered, and he believes the answer only lies in the knowledge and intelligence from the future. And so he sets off to the future. Meanwhile, in the 1960 film, as well as the original novel, apart from the implied intellectual curiosity, there is no backstory, no reason for the time-travelling protagonist to set off on his journeys. It is by no means to say that adding a backstory improves the original, but this is a tactic that a few remakes and adaptations have employed to ‘update’ their source material. In *12 Monkeys*, while the deadly virus may seem to serve the same purpose as the nuclear war in *La Jetée*, they differ in the nature of their causes. To locate the cause of a nuclear war is fairly obvious, it is simply a case of knowing who presses the button first. However, a deadly virus is more mysterious: while
there is most definitely a source of the virus before it spreads and mutates, the source itself is usually very difficult to find. As with its original *La Jetée* in which the time-travel journeys are meant to look for resources that their present moment lacks, *12 Monkeys* starts off with the time traveller Cole (Bruce Willis) travelling to the past only to try to secure a sample of the original virus *before* it mutates so that the scientists in the present moment can create a cure, because after mutation has happened the cure is impossible to make. However, as the film progresses, it becomes apparent that in trying to secure the original form of the virus it also means finding the perpetrator who spreads the virus in the first place. The logic then follows that once the perpetrator is found *and is apprehended*, Cole’s present (the future) can be saved. Therefore Cole is then determined to find out about the Army of the 12 Monkeys, who are suspected to have spread the virus. Similarly, *The Terminator* sees two parties trying to fix their respective interpretations of what the right present should be: the human resistance need their powerful leader John Connor in order to win the war against the machines while the machines need John Connor eliminated so that their war against the humans can be won. Therefore, in order to fix their respective interpretations of the what is right, the humans send Reese to protect Sarah Connor, the mother of John, while the machines send the Terminator to kill Sarah so that John will not exist.

This logic that fixing particular details in the past can lead to the present time being saved is an extension of the fantasy of ‘what if’. We all have regrets for certain decisions we have made. Inevitably, one fantasises about the question ‘what if’: what if I made a different decision, would it have led to a different outcome? Because of the irreversible nature of time (at least before the invention of a time machine!), hence the inability to ever answer the question of ‘what if’, ‘what if’ becomes a common experience that anyone who has ever regretted a past decision or action can easily relate to. Time travel films visualise the playing out of ‘what if’ scenarios, hence fulfilling the fantasy. As far as the fantasy/Sci-fi genre goes, time travel as a theme arguably has a universal appeal. This is what makes these films so fascinating. To portray ‘what if’ scenarios, three common characteristics (one could even say methods) can be observed from these time travel films. We shall be looking at them one by one.
Three common characteristics of time travel films

1. Complicated narrative structures

This is perhaps the most obvious characteristic, but also the most complicated. Time travel films often involve non-linear narrative structures that challenge the linearity of our perception of time. Therefore, in order to analyse their narrative structures, we will have to look deeper into the really “timey wimey stuff” by first considering the question “what is time?”

Time as the fourth dimension: personal time and external time

Time may just be a string of numbers indicated by the hands or digits on a clock or a watch. But in *The Time Machine* (1960), we are given a basic definition of the intangible nature of time from George (Rod Taylor), the time traveller. The film begins with a few dinner guests waiting at George’s house for their host, who is late. In the front room where the guests are, there are a lot of clocks of different shapes and sizes, reflecting the tangible, visible nature of time that is *clock time*. This is also a comic moment in the film where one of the guests asks for the time only moments after the numerous clocks strikes at eight o’clock almost all at the same time; it is also funny because when another guest is just about to consult his own pocket watch, he realises clocks are literally all around him, making his effort redundant. George then makes a dramatic entrance, from inside the house, appearing dishevelled and hurt. As he starts to recount what has happened to him, the shot dissolves and the film presents a flashback which sees the same group of friends at the same house on “the last day of 1899”. Now well dressed, George tells his friends that he has created something that “has to do with time”. Further strengthening the notion that time is usually only thought of as a tangible, visible string of numbers, one of the guests arrives at a quick conclusion that George must have created a new, more accurate timepiece that would be useful in the navy. Then George elaborates. He gives his guests, and us as audience, a brief explication of time and our relationship with it. He first explains “When I speak of time, gentlemen, I’m referring to the fourth dimension,” and that “the difficulty in explaining the fourth dimension is that it cannot be seen or felt.” Among the group of friends is a doctor (Sebastian Cabot), a man of science, who is also the same man who has mistaken George’s creation as merely a timepiece earlier. The doctor offers to explain what the first three dimensions are. As he puts it, these are forward
or backward, left or right, and up or down; alternatively, length, breadth and height. But he dismisses the fourth dimension as a “mere theory” and even questions its existence. George responds to the doctor’s doubt, “… the fourth dimension is as real and true a dimension as any of the other three. In fact, they couldn’t have existed without it.” He then elaborates, “Why is it that we usually ignore the fourth dimension? Because we have no freedom of movement within it. You see, we can move in the other three: up, down, forward, sideways, backward, as the doctor said. But, when it comes to time, we are prisoners.” We are fully aware of the first three dimensions. We have freedom of movement in the three dimensions (save for the limitation of gravity, which Wells’s novel has mentioned). We can also represent the three dimensions by means of diagrams (as I shall be doing later on). We have none of those when it comes to the fourth dimension which is time. Unlike the effects of gravity which we can counter to a certain degree (aeroplanes are a good example), we genuinely are “prisoners” when it comes to time, as there is virtually no way to counter the ‘force of time’ that pushes us forwards in time in a ‘one second per second’ speed. However, since the fourth dimension is not tangible or visible like the first three, as George has explained, most of us simply have no concept of the freedom of movement in the fourth dimension in order to even comprehend what it means by the lack of it. To understand it, we have to scale the problem down to the lower dimensions as a model, and then attempt to scale it back up again in our minds. This is what I shall be doing when I present diagrams that are obviously 2-dimensional as they appear on flat surfaces like these pieces of paper (or even as images on screens, which are still 2-dimensional spaces). This is also what Edwin A. Abbott has done with his 1884 novella Flatland: A Romance of Many Dimensions. Scaling our three-dimensional space down to two- and even one-dimensional ones. Much like Wells’s The Time Machine, Flatland was intended as a satire for the hierarchy of castes and class in Victorian times. But, just as I have taken Wells’s work quite literally as a study of time machines and time travel, I intend to take Abbott’s novella just as it is at face value — a study of dimensions.

In Flatland, Abbott writes of two-dimensional beings in the place called Flatland (a two-dimensional space), one-dimensional beings in Lineland (one-dimensional-space, i.e. a line), and three-dimensional beings in Spaceland (which are us and the world we inhabit). He writes as the narrator, humorously named A. Square, clearly a person/being from Flatland. He first explains to his three-dimensional reader life in the two-dimensional. Strangely, while we might initially think we have total grasp of the first three dimensions, as George in The Time Machine has pointed out, there are a lot of aspects of life in
Flatland, as well as Lineland, that we simply cannot intuit and need explaining. For instance, two-dimensional beings have no way to telling whether the being/structure in front of them is a triangle, or a square, or a pentagon unless they go around these shapes to look at the other sides (to count the number of sides, essentially). Of course, we as three-dimensional beings can easily tell these shapes apart by looking from top-down (which is the third dimension), but that is a luxury that two-dimensional beings simply do not have. Some beings in Flatland, in fact, have knowledge of the existence of higher dimensions, they simply choose to ignore them, either for their ignorance or for their control over those who are not aware of the knowledge. Likewise, some of us three-dimensional beings do have extensive knowledge of dimensions higher than the third — Albert Einstein and Stephen Hawking come to mind. George is wrong about us ignoring the fourth dimension on that front; but he is right to a certain extent, in the sense that most of us only ever see time, the fourth dimension as something that can be expressed in the first three dimensions, as his doctor friend sees it, as clock time. As Mary Ann Doane (2002) points out, time is “no longer a medium in which the human subject is situated … time is externalised and must be consulted.” (p7) Time is ‘rationalised’ as measures that can be seen on clocks, stopwatches, time cards, and so on. Epitomised by Taylorisation, referring to the Frederick W. Taylor’s technique of “scientific management” since the late 1890s that “prefigured and was fully consistent with the development of the assembly line” (p6), Karl Marx’s delineation that time as a “measure of value” (p7) has manifested fully in capitalist society. Time has always been a measure that we, as three-dimensional beings, are aware of. Anybody who has a deadline to fulfil does not ignore but succumb to the existence of this fourth dimension. But we do not fully understand what a "fourth dimension" really means, we still only comprehend it as a measure expressed in the first three dimensions, as numbers on clocks, rather than a separate dimension. In order to understand time travel, time has to be understood as more than just a measure, but also as a separate dimension.

So what about time travel? David Lewis (1976) gives a definition that seems to combine both the concepts of time as a measure and time as a dimension. He writes:

> What is time travel? Inevitably, it involves a discrepancy between time and time. Any traveller departs and then arrives at his destination; the time elapsed from departure to arrival (positive, or perhaps zero) is the duration
of the journey. But if he is a time traveller, the separation in time between
departure and arrival does not equal the duration of his journey. (p145)

The first thing that would definitely strike the reader as odd is the double of ‘time’ in
“between time and time”. Consider two places, A and B, a normal non-time-travelling
person can walk from A to B in an hour. They take an hour to complete the journey,
whereas an outside observer, who is not the person walking and merely observing them,
also takes an hour to witness the person complete the journey. Meanwhile, if this person
runs from A and B, it takes them half an hour to complete the journey, which would
normally take them an hour if they are walking instead of running. This person has halved
the time of his journey, but this person is not a time traveller, because the outside observer
also takes half an hour to observe the running person to run from A to B. However, if the
runner takes half an hour to go from A to B while, somehow, the observer takes an hour
to watch the runner go from A to B, then, we have two different ‘times’: the runner’s journey
time of half an hour and the observer’s observing time of one hour. Because of this
“discrepancy between time and time”, under Lewis’s definition, the runner is a time
traveller.

In the case where the runner is a time traveller, all of the first three dimensions are
equal for both the observer and the runner among all the non-time-travelling scenarios;
the only difference lies in the measurement in the fourth dimension in that there are two
different times. Lewis calls these two different times “external time” and “personal time”
(p146). “Personal time” refers to time that is experienced by the runner, as a progression
of their own biological process, from birth to death. The runner-as-time-traveller, when at
B, is older, metabolically, by half an hour compared to before they start, at A. It is important
to note that “personal time” always follows a linear progression of the person’s own
biological process, i.e. getting older, in no matter what fashion they travel in time: linearly
(as a normal non-time-travelling person), as forward time travel (as in the case of our
runner from A to B), or as backward time travel, which is where things can get very messy
as we shall see later. Meanwhile, "external time" is the time experienced by the external
observer. Since it takes the observer an hour to witness the runner go from A to B, the
"external time" in this particular case of time travel is one hour, while the "personal time"
of the time traveller is half an hour. The relationship between “personal time” and “external
time” is perhaps best illustrated in the fast-forward sequence in the The Time Machine
films, in particular, the 2002 version. As mentioned before, the 2002 film, depicts a bubble
that surrounds Hartdegen the time traveller and his Time Machine. Everything inside the bubble moves at a normal pace, while things on the outside move in a fast-forward fashion. The space inside the bubble would be Lewis’s “personal time” whereas the outside is “external time”. Because of the difference between these two ‘times’, things appear to move at different speeds. During the fast-forward sequence, Hartdegen accidentally drops a pendant bearing the photo of his fiancée outside of the bubble. While it is inside the bubble, it is fine, but once outside of the bubble, the pendant wears down and decays at lightning quick speed, and suddenly disappears, as it is no longer there after the many years of “external time” that the pendant has spent for the few seconds of “personal time” that Hartdegen inside the Time Machine, as well as the spectator watching the film, has experienced. The same relation between “personal time” and “external time” is also illustrated in Back to the Future. When Doc first presents Marty, and the spectator, the DeLorean time machine, he conducts “temporal experiment no. 1” on his dog, Einstein. Doc gives Einstein a clock while he also has one that is synchronised. At 1:20 on both clocks, Einstein the dog is put into the DeLorean and sent into the future. The DeLorean disappears. One minute later, it appears out of thin air. Doc checks the clocks again, now finding his clock is showing 1:21 (ticking over to 1:22) while Einstein’s clock is showing 1:20 (and ticking over to 1:21 at exactly the same moment as Doc’s clock ticks over). Doc then explains that in Einstein’s point of view the trip is instantaneous where both Doc and Marty have to wait for one minute for Einstein to finish the journey. The “personal time” of Einstein and the “external time” of both Marty and Doc are different. Meanwhile, back to our runner-as-time-traveller example, it can be said that the time traveller has taken half an hour to travel an hour. The syntax of the clause ‘that the time traveller has taken half an hour to travel an hour’ is certainly familiar, but its content and its meaning are rather strange. The syntax is familiar because it is perfectly normal, and easily comprehensible, to say ‘that it has taken me half an hour to travel 3 miles.’ However, even though we have established that there can be two different ‘times’ — personal and external, it is still difficult to put “taken half an hour to travel an hour” into perspective. It seems to follow the notion of “same but different” that I have introduced in the Introduction (also notice there is a certain affinity to the Freudian uncanny that is alluded to in Chapter 1).

Let us consider the two clauses separately. To explain “it has taken me half an hour to travel 3 miles” is relatively simple. For further simplicity, consider my speed to be uniform throughout the journey, my journey of taking half an hour to travel 3 miles can be represented in the graph in Fig. 2.1, where \( t \) denotes time and \( s \) denotes displacement (in
space, in length). Let us also consider this: if the 3-mile route is on a uniform slope, of, say, a 1-mile elevation, two more graphs can be drawn to represent different aspects of my journey. The graph in Fig. 2.2 has taken away my horizontal displacement of 3 miles. Instead, it shows that I have taken half an hour to climb one mile in elevation. Meanwhile, the graph in Fig. 2.3 shows the relation between my horizontal displacement (sh) and my vertical displacement (sv), leaving time, t, out of the equation. sh and sv belong to two of the three dimensions that George has explained: height (up and down) and length (forwards and backwards). Meanwhile, the variable t is one has been commonly used even in traditional Newtonian physics, and it certainly does not belong to any of the first three dimensions, that is another reason why George is wrong in claiming that the fourth dimension is ignored. It is not ignored and has been represented by the variable t. So, what about our time-traveller runner? Fig. 2.4 shows the graphical representation of that familiar but strange “that the time traveller has taken half an hour to travel an hour”, where ts denotes “personal time” (subjective time) while to denotes “external time” (objective time). But, do ts and to belong to different dimensions like sh and sv do? Lewis insists that
“personal time” and “external time” do not constitute a two-dimensional model of time, while “it is tempting to reply that there must be two independent time dimensions; that for time travel to be possible, time must be not a line but a plane.” (p145).

Lewis believes that “personal time” (subjective time, \( t_s \)) and “external time” (objective time, \( t_o \)) belong to the same dimension, and that the ‘temptation’ of representation them as “a plane” would be a mistake. However, what I have just done, graphically, is exactly what Lewis suggests to be wrong. I have represented the two “times” on a Cartesian coordinate system, which is a plane! However, consider yet another scenario: while I am running the course of 3 miles in half an hour, there is another person, a professional athlete, running the same course of 3 miles in just 15 minutes (This somewhat echoes Zeno’s paradox of the Tortoise and Achilles, but in this case we both start from the same position, hence there is no paradox). Assuming we both run at our respective constant speeds, Fig. 2.5 shows the graphical representation of this race, which is derived in the

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In Zeno’s paradox, the extremely slow Tortoise and the much quicker Achilles have a race. The Tortoise is given a starting point that is further forward than Achilles’s because of the speed disadvantage. Common sense dictates that Achilles would be able to overtake at some point during the race. However, for Achilles to complete half of the distance between him and the Tortoise, the Tortoise would have moved forward, no matter how small the distance, creating a distance that is longer than the half that Achilles has covered. Then when Achilles covers half of the new distance between him and the Tortoise, the Tortoise will have moved forward, making the new distance between them longer than the half Achilles has just covered. The paradox is that as Achilles continues to cover half the distance between him and the Tortoise, the Tortoise will always be ahead of him. Since in my example the Tortoise (me) and Achilles (the athlete) starts from the same position, it creates a kind of ‘reverse Zeno’s paradox’ in that for every distance \( n \) I have covered, the athlete would have covered \( 2n \), constantly doubling our distance.
same manner as Fig. 2.3, (by eliminating the common variable, \( t \)). Hence, we have a
graph of \( s_b \) against \( s_a \), where the latter denotes the distance travelled by the professional
athlete and the former by me. Fig. 2.5 means that when the athlete finishes their 3 miles,
I have only covered 1.5 miles, because their speed is twice as quick as mine. Notice that
Fig. 2.4 and 2.5 take exactly the same shape — when the \( x \)-axis reaches a particular
value, the \( y \)-axis only reaches half. Also, the \( x \)- and the \( y \)-axes are denoting the same
kind of measuring unit. It is obvious that in Fig. 2.5, \( s_a \) and \( s_b \) belong to the same
dimension, as I have described the scenario in which the athlete is running the same
course of 3 miles as I am. Also, even if the athlete is running in a different place, at a
different time, they are still in the same dimension as I am. Therefore, Lewis’s assertion
that “personal time” and “external time” belong to the same dimension is correct. The
coordinate system, being a two-dimensional plane, is only a graphical representation.

So how would we represent time travel? Despite Old Joe’s (Bruce Willis) disdain for
drawing diagrams of time travel in Looper, claiming that it does not matter, I believe
diagrams are the most direct way to illustrate the complexity of time travel narratives, just
as it was easier for diagrams to illustrate dimensionality as above. Therefore, in order to
fully understand the narrative structures of time travel narratives, some diagrams are in
order.

One-dimensional time travel

In Déjà Vu (2006), after the protagonist, Doug (Denzel Washington), discovers that
“Snow White”, the time-shifting surveillance system, is not just a way to look at the past
running parallel to the present (by 4 days, 6 hours, 3 minutes, 45 seconds and 14.5
nanoseconds) but can also establish an actual but invisible link between the two parallel
timelines (i.e. an Einstein-Rosen bridge, also more commonly known as a wormhole), he
quickly contemplates the possibility of altering the past by sending a note to his past self
through the wormhole. Doug and the scientists at the surveillance facility debate what
would happen to their present timeline if the past has changed, or indeed whether the past can be changed. One of the experts, Denny (Adam Goldberg) insists that the past cannot be changed, he even claims that “God’s mind is made up about this”\(^{11}\). However, another expert, Shanti (Erika Alexander) is more open-minded and suggests a "branching universe theory". She draws a diagram to illustrate what she means (Img 2.1). By introducing a "significant enough change"\(^{12}\) a new branch of time is created. In the film, the terrorist, Carroll Oerstadt (Jim Caviezel) has already blown up a ferry full of U.S. Navy sailors and their family members. However, by apprehending him before he plants the bomb, a new branch will be created in which the ferry will not be blown up. An FBI agent at the facility, Paul (Val Kilmer), then asks the logical question: what would happen to the original timeline? Shanti explains two possibilities: it is possible that the two branches will continue to coexist, but it is more likely that the original timeline will cease to exist. She crosses out the upper arrow of her diagram as she states the latter possibility (Img 2.2). The film leaves this question open as we do not see a definitive answer whether the 'original' timeline remains or has ceased to exist. This film is self-reflexive of the act of watching a film, as the characters are watching what is happening in the past on a projected screen, mirroring what the spectator is doing while watching the film (the only difference is that there is no wormhole between the spectator and the film). After Doug risks his life and travels to the past, the spectator is no longer presented with scenes that depict the staff at the surveillance facility watching the screen of past events. Therefore, there is no way to tell whether Shanti’s diagram should have two arrows at the same time (Img 2.1), or one new arrow while the old one is crossed out (Img 2.2). These two interpretations of time travel represent two mutually exclusive models: a one-dimensional model, as advocated by Lewis (and Shanti), and a two-dimensional model which we shall look at later.

Doc Brown in *Back to the Future Part II* has drawn a similar diagram in what is arguably one of the most iconic scenes in the film series, with one of the most iconic lines — about skewing tangents. *BTTF2* has perhaps the most convoluted time travel within the series.

\(^{11}\) This is an example of deterministic belief, which believes in a strict cause-and-effect relation in everything that happens. In Chapter 5 I shall offer an alternative to cause-and-effect, based on statistics and probability.

\(^{12}\) In chaos theory, most apparently in the “butterfly effect”, any insignificant change can cause huge deviations to the future; alternatively, there is no such thing as an ‘insignificant change’.
When Doc and Marty (of 1985) goes forwards to the year 2015 to avoid Marty’s future son from getting into trouble\(^\text{13}\), old Biff (of 2015) overhears their conversation about Marty’s greedy intent of bringing back a sports almanac that details all the sports scores between 1950 and 2000 so that he, back in 1985, can bet on sports with perfectly guaranteed winning odds, because the almanac has all the *right results*\(^\text{14}\). Old Biff also learns that the flying DeLorean that he saw 60 years ago (in 1955 in *BTTF*) is a time machine. Doc condemns Marty’s greed and throws the almanac into the bin. Old Biff picks the almanac up, and later, when both Doc and Marty are far away from the DeLorean, he steals it and travels back to 1955 to give his younger self the almanac, effectively stealing Marty’s rejected cunning plan (which, incidentally, Marty steals from a random man he has spoken to in 2015). In the film, we do not see Biff’s time travel. All we see is Biff surreptitiously flying off in the DeLorean and then coming back after a scene that happens inside the McFly house as if nothing has happened. At this point, the spectator does not yet know whether Biff has succeeded in altering the past, making his past self rich as a result of the almanac. Marty and Doc do not know about Biff’s momentarily stealing the DeLorean, so after their history-meddling business in 2015 they happily get back in the DeLorean and return to 1985. Upon return, Marty is shocked to find that everything is different from when he has left. It turns out that he is now in an alternate 1985 that is not much dissimilar to the apocalyptic futures that other time-travel films depict. What is more personally shocking for him is that now he finds his mother married to Biff, who is so rich and powerful

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\(^{13}\) This is an extremely problematic premise, as there is no logical reason for one to *travel forwards* in time to prevent something that will happen in the future. To avoid something from happening from the future, one simply needs to wait for time to pass as normal, and, with the knowledge of what to prevent, simply prevent it from happening. Alternatively, one can also take precautionary measures in the present to avoid a future incident from happening, just as Marty has done in *Back to the Future* where he writes Doc (of 1955) a letter warning him of his impending danger in 1985, which is successful as Doc survives the terrorist attack when Marty returns.  

\(^{14}\) As is the case for Doc and Marty lacking *any* logical reasons to travel forwards in time to 2015 to prevent an event from happening, this is another instance when *BTTF2* has made a logical blunder, although this time it is less obvious. In fact, getting a sports almanac full of scores and results from the future back to the past does *not* guarantee success. As explained in note 12, any small change can lead to huge deviations. Therefore, *in reality* (if and when time travel is possible), when Biff (of 1955) gets hold of the sports almanac from his future self (from 2015), as soon as he starts winning bets in succession, betting companies and authorities will most definitely start to investigate the extremely unlikely string of winning and look for possible malpractice, which will most likely lead to banning Biff from ever betting again. Also, if Biff’s bets appear to be perfectly accurate, the losing teams or athletes that he bets against will most likely change their mentalities and tactics (either positively or negatively), which will definitely lead to different scores from the ones recorded on the almanac.
that he controls the entire city, including the police, and that his father George is now dead. From outside the Biff Tannen Museum, there is a television that explains how Biff has come to be so powerful; it tells of the young Biff having an extremely lucky streak of winning in sports betting. At this point, the spectator realises that Old Biff (from 2015) has indeed succeeded in making his younger self rich with the almanac. However, Marty still has no clue. He looks for Doc to seek explanation for this strange reality. This is the iconic scene where Doc explains to Marty, and the spectator, how this alternate 1985 comes to be (Img 2.3). On a blackboard in his home laboratory, Doc draws his own version of a time travel diagram (recreated and modified in Fig. 2.6) that is very similar to Shanti’s diagram (Img 2.1 and 2.2), and explains,

Imagine that this line [OA (Fig. 2.6)] represents time. Here’s the present, 1985, the future, and the past. Prior to this point in time [Doc pointing at 1985], somewhere in the past, the timeline skewed into this tangent [he draws the “tangent”, i.e. OB], creating an alternate 1985 [pointing at 1985A]: alternate to you, me, and Einstein [Doc’s dog], but reality for everyone else.

Marty suggests going back to 2015 and preventing old Biff from stealing the DeLorean. Doc interrupts Marty before he even finishes his suggestion and explains that because they are now on an alternate timeline, OB, OA ceases to exist and the 2015 they will travel to will not be the original 2015 where old Biff has stolen the DeLorean, but the new 2015A where everything is different. Doc concludes that the only way to fix this is to locate point
O, the point where history “has skewed into this tangent”. Marty goes back to the now rich and powerful Biff (who is now also his stepfather) to ask him when he is given the almanac. Somehow Middle-aged Biff (of 1985) is stupid enough to easily divulge this piece of vital information, whereas he then later reveals that the mysterious old man who has given him the almanac (Old Biff of 2015) has warned him that one day either a mad scientist (Doc) or a young kid (Marty) would come up to him and ask about the almanac, which suggests that Old Biff is, paradoxically, clever enough to work out time travel. Old Biff is also clever enough to advise Young Biff (of 1955) to simply shoot dead whoever asks about the almanac. Of course, Marty, being the protagonist, has survived the shooting and is now set to go back to point O to ‘fix history’. Point O happens to be 12 Nov 1955, the day when Doc (of 1955) sends Marty back to 1985 in *BTTF*. The plot of *BTTF2* then follows Doc and Marty going back to 1955 to stop Young Biff from getting the almanac. Doc reminds Marty that in order to succeed, they cannot let Old Biff know that Young Biff has not secured the almanac or he would not drive the DeLorean back to 2015 and Doc’s and Marty’s earlier selves (in 2015) would not have a vehicle to come back to 1985, hence creating a *paradox*.

This is one of the many instances in the narrative of the *Back to the Future* film series where the whole enterprise of time travel falls apart. The reason is that the films have confused a one-dimensional model of time travel with a two-dimensional one. Earlier, in Shanti’s time travel diagram from *Déjà Vu*, the one where the original timeline ceases to exist is a one-dimensional model, whereas the one that has both timelines running parallel to each other is a two-dimensional model. In *BTTF2*, when Old Biff (of 2015) travel back into the past (1955) and hands his younger self the almanac, presumably (as this is not shown in the film) he believes his work is done, and he travels back to 2015 in the stolen DeLorean. There are two possibilities at point O (Fig. 2.6): one is that young Biff keeps the almanac and creates timeline OB, killing George and marrying Lorraine; another is that young Biff somehow loses the almanac (for instance, a future Marty comes around to steal it from him, as per the later plot of *BTTF2*) and history has not changed and time
progresses along the original timeline OA. The fact that Marty and Doc travel from 2015 back to 1985 and find themselves in 1985A suggests that young Biff has indeed secured the almanac and has created a timeline OB. When Old Biff comes back to 2015 to return the stolen DeLorean, he is in fact travelling along OA, indicated by the forward arrow in Fig. 2.6.2. But, then, when Marty and Doc, who are still on the original timeline OA travels back from 2015 to 1985, they find themselves in 1985A, which suggests that their backwards time travel follows the arrow that connects both OA (at 2015) and OB (at 1985A). What these two different arrows suggest is that time travel in the BTTF series is a model that allows travelling across different timelines, in this case, OA and OB. However, when Marty suggests going forwards to 2015 to fix the damage, Doc states that the only 2015 they can travel to from 1985A is 2015A. What makes Doc so sure that they can only travel in the direction of arrow b, and definitely not arrow a which is quite simply the reverse of the journey they have just taken?

If the model of time travel is a one-dimensional one, where the original timeline would cease to exist, it should be gone once a new timeline is created, because, in a one-dimensional model, only one timeline can exist — Marty and Doc (of 1985, in 2015) should simply vanish. This one-dimensional model is perhaps best illustrated in the animated series Family Guy, whose makers incidentally like to make fun of Back to the Future and make references to the film series in many of the show’s episodes. In the episode “Life of Brian”\textsuperscript{15}, Brian (voiced by Seth MacFarlane, the show’s creator), the anthropomorphic dog of the Griffin family, is killed by a car, after the show’s regular time-traveller, Stewie (also voiced by MacFarlane), the talking one-year-old baby, has destroyed his time machine. Unable to travel back in time to save his best friend, Brian, Stewie has been distraught for a few episodes. Then in the episode "Christmas Guy", Stewie spots his earlier self at a toy store. He (Older Stewie) decides to steal his (Younger Stewie’s) time machine to travel

\textsuperscript{15} “Life of Brian” was first aired on 24 November 2013. “Christmas Guy” was first aired on 15 December 2013.
back to moments before Brian's death. He (Old Stewie) successfully saves Brian. He explains to Brian about his death in the original timeline, and also explains, since Brian is now alive, the original timeline no longer exists. Thus he (Older Stewie from the original timeline) should vanish soon. And indeed this Stewie vanishes just as another Stewie comes to Brian, completely unaware of any of the time travel and different timelines. This is a very consistent portrayal of the one-dimensional model of time travel — the original timeline, along with everything on it, should disappear the moment a new timeline is created. However, since Doc and Marty (of 1985, in 2015) have not disappeared, we can safely say that the Back to the Future series adopts a two-dimensional model of time travel. As a result, Doc’s diagram is inadequate to illustrate time travel that happens in the film series.

Two-dimensional time travel

The two-dimensional model requires a more complicated diagram, one that is drawn on the Cartesian coordinate system (e.g. Fig. 2.1-2.5). But, interestingly, the two-dimensional diagram can also represent the one-dimensional model (just as the two-dimensional coordinate system can be used to demonstrate the relation between two variables that are in the same dimension, e.g. Fig. 2.5). While Lewis dismisses the possibility that his "personal time" and "external time" constitute two different dimensions, he does not completely reject the possibility of a two-dimensional model of time. Lewis refers his reader to Jack W. Meiland (1974), who has developed a detailed model for a ‘two-dimensional time’.

Meiland has developed the two-dimensional model as a reaction to the objection from other philosophers who claim that time travel is “logically impossible” (p153). He has identified two objections. The first objection concerns the two different designations of time to which a time traveller inevitably has to be assigned. This echoes Lewis’s “personal time” and “external time”. Meiland cites Donald Williams who finds it logically unacceptable for “Wellsian time travel” (Meiland, ibid.) to exist. Williams cites Wells’s novel where the narrator contemplates the whereabouts of his missing time-travelling friend: “He [The Time Traveller] may even now — if I [the narrator] may use the phrase — be wandering on some plesiosaurus-haunted oolitic coral reef, or beside the lonely saline seas of the Triassic Age.” (Williams p105, n19, quoted in Meiland, p153), and suggests that one cannot be both “now” (the year 1900) and in the Triassic Age (over 200 million years ago).
Wells's parenthetical remark “if I may use the phrase” seems to suggest that he too notices the possible logical blunder. Of course, if we are to accept David Lewis’s concepts of “personal time” and “external time”, the two different designations of time are only due to a difference in point of view, one being subjective while the other objective. Then, the ‘now’ of 1900 belongs to the narrator, whereas the ‘now’ of the Triassic Age belongs to the Time Traveller. However, since the narrator is designating both ‘nows’ as the Time Traveller’s, this view does not seem to apply.

The second objection concerns the problem of different truth values that may be assigned to the same event. Meiland cites Jonathan Harrison who claims, “The sentence ‘I [Harrison] was not at the Great Exhibition [of 1851]’, if it can be used at one time to make a true statement, must make a true statement when it is used at any subsequent time.” (Harrison, 1971 p2, cited from Meiland, p156) For Harrison, the fact that he was not at the Great Exhibition of 1851 will always prevent him from ever going back in time in a time machine and attend the 1851 Great Exhibition, because that would mean that he was at the Great Exhibition of 1851, which contradicts the statement itself. This follows a belief that a statement “concerning unique events” (Meiland p157) cannot have “one truth value at one time and a different truth value at another time.” (ibid.) Because Harrison was never at the Great Exhibition of 1851, it will always remain true that he was not there. Meiland realises that “the fundamental assumption behind Harrison’s view is that the past is fixed and cannot change”, and asks, “What happens if we give up the assumption that the past is fixed and is eternally changeless?” (p158)

This is the basis for Meiland’s two-dimensional model of time. In response to the two objections to time travel, Meiland creates a model of time in which (1) a designation of two different ‘times’ of the same person makes sense and (2) the past (as well as the future) is not fixed and can be changed. In short, this is a model that explains time travel is possible and provides a two-dimensional graphical representation that even three-dimensional beings like us can at least try to understand what goes on in the 4th dimension.

Fig. 2.7 is a slightly modified version of Meiland’s original schematic (p158ff). The two axes are in fact referring to the same clock time, the system in which we use to tell time, e.g. the year 1985, or 27 June, or 3 o’clock, or indeed the combination of the three. Unlike Lewis's “personal time” and “external time” which are different times but belonging to the
same dimension, the two times represented by the two axes of Fig. 2.7 are the same type of time (clock time) but constitute two different dimensions, as in length and width (same unit of measurement but in different dimensional spaces). The reason for such an arrangement is because, as a time traveller travels through time, they will require a set of two different clock times to designate his position in space-time, relative to his “departure” (Lewis’s term from the earlier quote). It is conventional for a Cartesian coordinate system to denote any point using a set of coordinates. Here, in the case of a two-dimensional coordinate system, the format is (x-coordinate, y-coordinate). Hence, in Fig. 2.7, point A is (t1, t2), B is (t1, t3) and C (t3, t3). In the two-dimensional model of time, these coordinates not only tell the exact positions of these points relative to the two axes, but they also give meaning as to what these points mean. For instance, A(t1, t2) represents time t2 relative to t1.
To put it into context, let us consider the events that happen in the first *BTTF* film. Marty inadvertently travels from 26 Oct 1985 to 5 Nov 1955, he is said to have travelled from point C to point B in Fig. 2.8. Point C has the coordinates of (26 Oct 1985, 26 Oct 1985), meaning 26 Oct 1985 in relation to 26 Oct 1985, which may seem a redundant designation for the reader. But consider point B, which has the coordinates of (5 Nov 1955, 26 Oct 1985) and that requires some explanation.

When an ordinary folk of 1955 wakes up on the morning of 5 Nov 1955, they come from 5 Nov 1955 before dawn; but when Marty arrives at 5 Nov 1955, he comes from 26 Oct 1985. The coordinates reflect the relationship between ‘arriving at’ and ‘coming from’: point B (5 Nov 1955, 26 Oct 1985) represents the Nov 1955 that is travelled from Oct 1985. It is important to note Marty does not arrive at point A, because point A is (5 Nov 1955, 5 Nov 1955), which reflects the 5 Nov 1955 that is travelled from 5 Nov 1955, i.e. no time travel at all. The reader may then have the following question: Since point A seems to fit the description of the ‘ordinary folk’ who wakes up in 5 Nov 1955 in a non-time-travelling fashion, and Marty is clearly at B, does it mean that at point B Marty does not meet anybody who is not a time traveller but just an ‘ordinary folk’?
This is where this model gets complicated. Of course, we can all see that Marty meets a lot of ‘ordinary folks’ in 1955, including his mother and father before Marty himself is born. Here, we need to consider the diagonal lines on the graph. Points A and C are on the diagonal line of function \( y = x \) (in both Fig. 2.7 and 2.8). This diagonal line of \( y = x \) represents the original timeline, the timeline for any non-time-travelling person. For instance, I am in the year 2016 and I have not travelled in time, so I stay in 2016; my coordinates are (2016, 2016). Next year will be 2017, and my coordinates will be (2017, 2017), and so on. As long as I do not time travel, I stay on the diagonal line \( y = x \) and cannot be anywhere other than on it. In this graphical representation, I become an inhabitant of ‘Lineland’ of Abbott’s novel, because \( y = x \) is a line, and my movement is confined only to within this line, exactly like the inhabitants of Lineland. Of course, this is only a scaled-down model illustrating my inability to move freely in the fourth dimension. Continuing to scale myself down to being an inhabitant of Lineland, as a line is one-dimensional, I cannot jump over 2017 and land on, say, 2025, because ‘jumping’ would mean leaving the line and into the second-dimension, which I do not have access to, just as I do not have access to the time dimension. Scale this metaphor back up two dimensions, I, as a three-dimensional being, cannot skip over any time unless I leave the dimensions in which I am occupying and enter into dimensions of a higher degree, i.e. time travel. In the case of Back to the Future, the \( y = x \) line is Marty’s ‘original timeline’ from which he cannot escape before he has access to the DeLorean time machine. \( y = x \) is where the original story happens, the story that Marty’s mother, Lorraine (Lea Thompson) recounts near the start of the film, of how she and George McFly (Crispin Glover) first meet and fall in love: George is hit by the car driven by Lorraine’s father, Sam Baines (George DiCenzo), outside the Baines house. Lorraine takes George in and cares for him. They then have their first date at the Enchantment Under the Sea dance where they have their first kiss (the primal scene). After recounting the story, Lorraine says, "If Grandpa [Sam] hadn't hit him, then none of you [her children, including Marty] would have been born." This line prefigures and sets up the premise of the film, because when Marty travels back to 1955, he inadvertently changes the story Lorraine has recounted by saving George from being hit by the car, hence preventing all the rest of Lorraine’s story from happening. Just as Lorraine has said, none of her children would have been born. By preventing Lorraine’s story from happening, it threatens to erase Marty's own existence. Marty has got to fix his ‘mistake’, or he risks fading away (as depicted in the film as the image of his siblings disappearing on a photograph, and his hand becoming transparent at the Enchantment Under the Sea dance before George rescues Lorraine from Biff).
Or at least that is what the film has the spectator believe. Referring back to Fig. 2.8, since Marty is now in point B, all of the changes he does in 1955 happens on the new timeline, of function \( y = x + 30 \) years. When Lorraine recounts her story of meeting and falling in love with George, her story happens on the original timeline, \( y = x \). This is a model of many possible realities, while \( y = x \) is one possible reality, \( y = x + 30 \) years is an alternate reality. This is what is meant by a two-dimensional model of time (or time travel), where many timelines coexist parallel to one another. On our diagrams, many timelines coexist (Fig. 2.8 shows only two of them) and run parallel to one another at a 45° angle.

To answer the question of whether there are ordinary non-time-travellers present at point B, of course there are. But, to them, their coordinates would not be (1955, 1985) (meaning from 1985 to 1955), as they are not time travellers. As explained above, non-time-travellers are like inhabitants of Lineland and can only stay on the line \( y = x \). Therefore, for everyone Marty meets in 1955 at point B, their coordinates are (1955, 1955). But is that not the same point as point A? Does that mean point B is point A? No, that is definitely not the case. This is perhaps the most important thing to note of this model of time: it only applies to one person. Fig. 2.8 is only a model of time as Marty sees it. As far as all the non-time-travelling people Marty meets in 1955 are concerned, their time diagram is Fig. 2.9, where nothing exciting happens — everything stays on \( y = x \) —
except at point P, in 1955, some mysterious guy named Calvin Klein (as Lorraine mistakes the name on Marty's underpants as his), who prefers to be known as "Marty", appears from nowhere, teaches George McFly to be tough and fights the bully Biff Tannen, and plays the electric guitar in an exuberant way when he plays the 1958 song "Johnny B. Goode" with the added 80s-style solo at the end (which has been described as a "celebratory public masturbation" above).

When Marty has 'fixed' his mistake and re-engineered his primal scene (the kiss) that somehow means ensuring Marty's existence, he is sent back to 1985 by Doc. But he has not 'fixed' his mistake; he has completely changed the reality. In Marty's original timeline, his house looks drab; Biff is George's bullying supervisor at work and walks into the McFly house as if it is his; George is a timid man and does not confront Biff; Lorraine is overweight, depressed and an alcoholic; his brother wears a uniform, indicating that he works at a low pay job. When Marty is back from his antics in 1955, he wakes up to a house that is sharply appointed; his siblings are well-dressed, his brother even "always wears a suit to work"; his parents come in the house from some sort of sports game, suggesting that they now lead a healthy lifestyle; George now moves with a swagger and exudes confidence; Lorraine is now thin (as Marty actually remarks, "Mom! You look so thin!"); and Biff is now a car cleaner waxing George's BMW and being bossed around by George. In the end, Marty has not fixed anything; he has created a reality that is exactly the opposite of his original reality. Since every member of his family is doing better, and Biff no longer hassles his family, you may say that Marty has improved his original timeline.

In this new and improved timeline, George and Lorraine casually talk about the story of them falling in love. Now, instead of Lorraine's original story of her father hitting George with his car, a story that belongs to the original timeline \( y = x \), now the couple are saying "if it wasn't for Biff, we wouldn't have fallen in love." Clearly, this is in reference to the events that happen in the new timeline \( y = x + 30 \text{ years} \), where George finds the courage to stand up to Biff and rescue Lorraine from him. Therefore, according to the depiction of time travel in Back to the Future, in Marty's time travel from 1985 to 1955 (Fig. 2.8), he has left his original timeline of \( y = x \) and arrived at the new timeline of \( y = x + 30 \text{ years} \), but when he travels back from 1955 to 1985, he is definitely not back on the original \( y = x \), where there should not be any change (as all the changes happen on \( y = x + 30 \text{ years} \)). But which timeline is he on now?
Similarities to other time diagrams

There is one element of Meiland’s two-dimensional model that I have not discussed yet. Consider Meiland’s own explanation to his model in regards to the treatment of the past:

each present moment has a possibly different past associated with it. We must now further explain the notion of ‘different’ being used in saying this. One way of construing ‘different’ is as ‘numerically different’. And if we were to construe ‘different’ in this way, we would be saying that there are many — indeed, an infinite number of — different pasts since there would be one for each present moment. This is not the way in which I am using ‘different’. Instead I wish to construe ‘different’ as meaning ‘qualitatively different’. I am saying that the past may be qualitatively different from one (present) moment to another. (p160)

This is indeed an interesting turn, what with all the mathematical and geometrical representations inevitably implying a numerical way of understanding time. But instead of understanding the past numerically, or quantitatively, Meiland insists on considering the past qualitatively. The quality of the past is in fact represented by one element of our two-
dimensional model that we have overlooked so far: the horizontal lines (Fig. 2.10). These horizontal lines, P₁, P₂, and so on represent the cumulative qualities of pasts that have started from long ago (even the beginning of time) right up to the moment when the horizontal line meets the diagonal line, representing the present. Therefore, at t₁, the past is the whole of P₁; not just individual points, but the entire length of the horizontal line (or, alternatively, all of the points that make up this line). Similarly, at t₂, the past relative to that moment in time is the whole of P₂. Therefore, if we reconsider the events of BTTF (Fig. 2.11), we would notice that one of our assumptions has been wrong. When Marty travels back to 1955, he changes history at point B, instead of point A. However, that does not mean the original timeline y = x does not change. The original timeline y = x may not have changed numerically at point A, but at point C, its quality has changed, because P₅ is now changed as a result of the changes that happened at point B. Therefore, both the original timeline and the new timeline now have qualitative change because of the change at point B. In all of the ‘pasts’ right up to 26 Oct 1985, P₁ through to P₄, George gets hit by the car of Lorraine’s father, and Lorraine then subsequently falls in love with George. Meanwhile, after Marty has travelled to the past, the quality of the pasts has changed. From P₅ onwards, history has it that a young mysterious kid named Calvin Klein, who prefers to be called Marty, encourages George to be brave, and George subsequently wins Lorraine’s heart.
Henri Bergson’s ‘inverted cone’

In fact, this two-dimensional model of time is reminiscent to Henri Bergson’s famous diagram developed in Matter and Memory (2004/1896), which, Giles Deleuze (2009/1989) describes as Bergson’s “second great schema, the famous cone” (p284, n22) of Matter and Memory. The “schemas” that Deleuze refers to are the system of images that Bergson has developed in Matter and Memory, one that Deleuze (2009/1986 and 2009/1989) has adopted for his work on cinema, which sees cinema capable of producing two types of images: the movement-image and the time-image. Bergson's concept of "images" is profoundly complex and combines perception, affection, action, experience and memory, all into a unifying system of "images". The key to understanding Bergson's philosophy is to understand the dualistic balance that he wants to strike between realism and idealism.

Bergson believes that "it is a mistake to reduce matter to the perception which we have of it, a mistake also to make of it a thing able to produce in us perceptions, but in itself of another nature than they". Bergson considers matter, the perception of it, and the place where these perceptions are being held (i.e. the brain, or memory) are all ‘images’. Bergson ascribes ‘images’ to “a certain existence which is more than that which the idealist calls a representation, but less than that which the realist calls a thing, — an existence placed half-way between the ‘thing’ and the ‘representation’." (p.vii-viii) It is the interplay between ‘images' that we can see objects, feel them, smell them, and, crucially, have memories of them, as well as react to them, all of which are ‘images' themselves. The ‘first schema’ that Deleuze identifies in Bergson's work is that of the sensorimotor process (Bergson, p37ff), which is the forming of ‘images' from the perception of an object (or any ‘thing’), the affection of it, and subsequently the action in response to it. Bergson uses this sensorimotor schema to describe various human (or animal) activities, ranging from reflex action (e.g. a knee-jerk) to habitual and learnt actions (e.g. learn to play a piece on the piano), and even to decision-making. For Bergson, all of these actions follow the following path: the perception into the brain, to the affection within the brain, then to action which is executed outwards from the brain. This is the first schema in Matter and Memory, and also the basis for Deleuze’s “movement image”. The “famous cone” that we are interested in here concerns the second schema, which refers to what aggregation of the experience of the sensorimotor schema into the mind as memory. Fig. 2.12 is a reproduction of Bergson’s diagram (p211), the famous ‘inverted cone’ that represents his second schema. As Bergson explains, “The bodily memory, made up of the sum of the sensorimotor systems organised by habit, is then a quasi-instantaneous memory to which
the true memory of the past serves as base." (p197) As a sum of sensorimotor systems, the inverted cone can describe the memory of a particular object, that of a certain event, or even the entire psychic life of the person (or animal). The "base", AB, can be the memory of first touching an object (or learning a certain skill, or attitude towards a particular event, etc.). Then, as the individual gains more experience of the same object, more planes (A'B', A"B", etc) will be formed within the individual's brain, where "the memory of the past offers to the sensorimotor mechanisms all the recollections capable of guiding them in their task and of giving to the motor reaction the direction suggested by the lessons of experience." (ibid.) The plane P is what he calls the "plane of experience", or the plane that represents the present moment, where it meets the cone at point S, where the individual takes an action, or makes a decision, or forms a conclusion, etc., according to all the guidance formed by the individual's previous experience / memory (the whole cone itself). The reason why the 'newer' the AB plane becomes smaller than the previous one is also the same principle that the 'image' of an object is not the 'image' we have of that object. The object itself always has the biggest 'image' as it is a whole itself. When we perceive this object, we have our own interpretation of it, and we go through a process of "discernment", one that determines what elements of the object "interests our various needs" (p78) as a result the mind selects part of the image (the object itself), then forms its own image of the object, which is smaller in size (but Bergson reminds us that the difference is only "of degree and not of kind" (ibid.)). Similarly, as the habitual experience gets repeated (as in learning to play a piece of music), a similar 'selection' process takes place, effectively refining one's understanding. Therefore, at the present moment, the whole memory of the image comes down to a single point at point
S. However, of course, one has to bear in mind that the point S moves as time moves; as soon as a moment is present, it quickly becomes past as the next moment becomes present. Therefore, what in the previous moment is the most refined of the memory of a particular image, manifested as a point, the next moment will see an even more refined image of the previous image.

Therefore, in Bergson’s system, the entire cone represents the whole history of the refinement of a memory image, with S being essentially the most ‘up-to-date’ version of that image in the memory. Similarly, the $P_1$, $P_2$, ... etc. in the two-dimensional model of time represent the different versions (or ‘images’) of the past. All of these different versions of the past combined forms time itself, similar to Bergson’s durée, duration as a continuous progress. The shape that the two-dimension model of time forms is essentially a cross-section of one-half of a cone. Fig. 2.13 presents a combination of the two-dimensional model of time and Bergson’s inverted cone. Doubling the timeline $y = x$ with its flip side ($y = -x$), it creates a cross-section of a cone. Now $P_1$, $P_2$, ... etc. represent similarly to Bergson’s planes $AB$, $A'B'$, etc., both of which represent the individual versions (images) of the past (memory). The parallel between the two is strikingly similar, except for one detail: despite both being ‘inverted cones’, the Bergsonian model goes from top to bottom, from the past to the present, whereas the two-dimensional model of time goes from bottom to top, from the present to the future. Their directions seem to be opposite to each other.
However, when we consider the next diagrammatic model of time, from Hermann Minkowski, we will realise that they are not opposite at all.

Henri Bergson is a significant figure for Film Studies in quite a few unusual ways. First of all (this is perhaps the most obvious ‘cosmic coincidence’ among all of the coincidences that are dotted about in this thesis), Bergson’s Matter and Memory was published just when cinema was born, in 1896. But, ironically, Bergson was famous for criticising the “mechanical production of movement” of the cinématographe (Gunning 2014, p4). Even from his 1907 work Creative Evolution, one can see that he was not a fan of the newfangled invention, which, he believed, “repeated an ancient intellectual error” (ibid.) of Zeno’s paradox that confuses motion with stillness, and mistakenly believes that motion is composed of a succession of stillness. For someone who “does not wish to treat duration as a quantity” (Ansell Pearson, et al, p4) and whose philosophy has been to emphasise the importance of the continuous and indivisible wholeness of time and life and their progression (which is manifested, for instance, in his inverted cone, which is to be considered in its entirety), the mechanical illusion of the cinématographe, which splices time into discontinuous bits that are then fallaciously stitched back together to create the illusion of movement (i.e. continuous time), would definitely seem “antithetical to life” (Gunning, p6), and antithetical to his philosophy. However, just as Deleuze sees potential (if not a direct parallel) in Bergson’s philosophy that is analogous to cinema, Gunning also believes that Bergson’s critical view on the cinema was “rather overhasty”, as a result of confusing the cinématographe with Marey’s chronophotography and Muybridge’s zoopraxiscope that preceded cinema (p5). Also, Gunning believes Bergson was only critical of the nature of the cinematic apparatus, the components, and the operation, but "not its final effect … the moving image as seen on the screen." (ibid.) Also, as noted by Gunning, Bergson did, later on, show interest in cinema, as seen in an interview he did in 1914\(^\text{16}\), as well as his involvement in Archives de la Planète (1908-1931), which was “a first-of-its-kind multimedia archive comprised of colour photographs and unedited nonfiction films founded by the Alsatian-born Jewish-French banker Albert Kahn with the express purpose of capturing and storing the transformation of everyday life in the modern world.” (Amad, 2010, p4)

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The similarity between Bergson’s ‘inverted cone’ and our two-dimensional model of time is undeniable, suggesting that intricate links between Bergson’s philosophies and the cinema exist. Now, after lightly traversing through philosophy, in Bergson, to find parallel and support for our two-dimensional model of time that can explain time travel films (as well as films *in general*), we are about to get even more “wibbly wobbly, timey wimey” when we consider some basic quantum physics concerning the nature of time.

- Hermann Minkowski’s spacetime

Hermann Minkowski was Einstein’s mathematics professor when Einstein was a student in Zurich. On 21 September 1908, Minkowski introduced spacetime during the address at the 80th Assembly of German Natural Scientists and Physicians meeting. According to Nahin (p148), in his address lies a “famous line quoted in so many freshman physics texts and philosophy papers”; it concerns the relationship between space and time:

> The views of space and time which I wish to lay before you have sprung from the soil of experimental physics, and therein lies their strength. They are radical. Henceforth space by itself, and time by itself, are doomed to fade away into mere shadows, and only a kind of union of the two will preserve an independent reality. (Minkowski, 1952 p75)\(^{17}\)

Minkowski then carried on to explain his model of spacetime. Fig. 2.14 is a simplified version of what Minkowski described in 1908, as he spoke of “world-points’ on a coordinate system which has “four world axes” (recalling George’s mention of the fourth dimension in *The Time Machine* (1960)), denoted by *four* variables \(x, y, z, \text{ and } t\) (Nahin, p149). Since it is difficult, if not impossible, to draw four axes in a single coordinate system whilst still keeping it legible, it is common to leave out one, or, in our case, two of the three space axes \(x, y, \text{ or } z\) (p439ff). This is certainly not a thesis on quantum physics and having only one axis representing ‘space’ of the \(x-, y-\text{ and } z\)-axes is plentiful enough to illustrate simply Minkowski’s basic concepts! Minkowski made a comment that is reminiscent of Bergson’s system of ‘images’ when he said that in his spacetime, “everywhere and

\(^{17}\) This quote can also be found in Nahin, p148. However, Nahin’s quote is incomplete and (mistakenly?) changes “independent reality” into “independence”, rendering the quote rather incomprehensible.
everywhen there is *something* perceptible. To avoid saying ‘matter’ or ‘electricity’ I will use for this something the word ‘substance’.” (Nahin, p149) While Minkowski calls his ‘something’ “substance”, Bergson prefers ‘image’, both of which attempt to account for a certain *something* that can represent both a tangible object, as in realism, and an intangible ‘something’, as in idealism. The world-points on Minkowski’s spacetime describe a curve that represents “the everlasting career of the substantial point [point of a “substance”), a curve in the world”, or a “world-line”. On Fig. 2.14 there is one such world-line, which can describe the movement in space and time of anything, including a person’s life (more precisely, their physical movement in space and time). In fact, this randomly drawn wiggly line could be representing someone’s life seen in Here and Now. The part of the line inside the past light cone represents the person’s past (where they have been), whereas the part of the line inside the future light cone describes one of his possible futures (where they can possibly go). If the person makes a different decision at Here and Now, his world-line may be different in the future (hence the dotted line).

The shape of these cones, reminiscent to Bergson’s own cone, are in fact defined by the limits of physics, by the *speed of light*. Hence they are called "light cones". As Stephen
Hawking explains in *A Brief History of Time* (1995(1988)), James Clerk Maxwell’s equations have “predicted that the speed of light should be the same whatever the speed of the source” (p31). From this, it follows “that if a pulse of light is emitted at a particular time at a particular point in space, then as time goes on it will spread out as a sphere of light whose size and position are independent of the speed of the source.” But this is not an ordinary sphere, but a sphere in the *fourth dimension*. Nahin explains that at the time when Minkowski presented his ideas, many have disregarded it as a “mathematical joke” (p149). He cites an anonymous writer, who simply signed himself as “W. G.” in his/her article in *Nature* in 1920\(^\text{18}\), explaining the relationship between spheres and cones in Minkowski’s model. W. G. also uses Abbott’s *Flatland* to demonstrate what happens at the fourth dimension, similar to what I have done earlier (or, rather like Marty whose future-almanac idea is not his own original idea but from some random guy, my use of *Flatland* earlier is actually inspired by this mysterious W. G.). W. G. asks the reader to imagine when a sphere passes through Flatland how the inhabitants of Flatland would see it. When the sphere first touches the flat surface that is Flatland, it is a point. Then as the sphere passes through Flatland, the flat surface of Flatland cuts across the sphere and all that its inhabitants can see are the *cross sections* of the sphere. As the sphere passes through, its cross section goes from being a point, to a small circle, and then to increasingly larger circles. After the sphere’s radius have passed through the flat surface, its cross section becomes smaller again, all the way down to a point, and then the point disappears. From the point of view of a three-dimensional being, like us, the sphere passes through a flat surface. But from the point of view of the two-dimensional beings on the flat surface itself, what they see is a point suddenly appears, then the point *expands* into a circle that gets bigger and bigger, and then the circle *contracts* and gets smaller and smaller, until it becomes a point, and then it disappears. If we stack the cross sections together, we have a *cone*. That is why Minkowski spacetime is made up of cones - it is a Flatland-like attempt to illustrate what a four-dimensional object passes through the three-dimensional space. This, incidentally, is how Einstein came to define that, contrary to Newtonian linear physics, space-time "is not flat, but curved, or ‘warped’" (Hawking, p33) Furthermore, this is also how it has led Hawking himself to *reverse-engineer* all of this back to “the beginning of time" (p56), to theorise the moment just before the analagous sphere touches the flat surface, i.e. the Big Bang.

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Of course, we are not here to talk about general relativity and the Big Bang. The reader only has to know that the confines of the light cones indicate what is physically possible, as nothing has been proven to be able to travel faster than the speed of light yet (the Large Hadron Collider at CERN is only getting close to it). Therefore, from the point of view of the point (Here, Now) (in Fig. 2.14), which has its equivalent in Bergson's 'inverted cone' and Meiland's two-dimensional model in point S (Fig. 2.12 and 2.13), anywhere (and anywhen) within the light cones is possible. What these three ‘different but same’ diagrams, originated from Meiland, Bergson and Minkowski, have shown is that our reality is best understood to be composed of stacks of spacetime (versions of past in Meiland, versions of memory in Bergson, and the range of possible movement within the space-time continuum in Minkowski). These diagrams help visualise the forking paths of what-ifs that make time travel narrative so fascinating. They also visualise just how complex time travel narratives can get in time travel films.

These graphical representations will remain useful tools throughout the entire thesis. Chapter 3 will explore the mechanics of ‘complicated narratives’ even further by considering narratives that do not feature time travel, in Rear Window (Alfred Hitchcock, 1954) and Citizen Kane (Orson Welles, 1941). By simply not involving time travel, these narratives may seem ‘simple’ compared to the fantastically complicated diagrams that I have presented here trying to explain the nature of time and how a time travelling character may traverse within it in a time travel film. But, as we shall see in Chapter 3, this is not the case.

2. The aesthetic of repeats

Since time travel narrative often involves going back in time, very often these films present scenes that the spectator has already seen, but from a different point of view as a result of the backwards time travel from the future relative to those scenes.

One of the most well-executed examples of this aesthetic of repeats is in Harry Potter and the Prisoner of Azkaban (Alfonso Cuarón, 2004). During the first round of the scenes to be repeated, the spectator sees the three young wizards Harry (Daniel Radcliffe), Ron (Rupert Grint) and Hermione (Emma Watson) first visiting Hagrid (Robbie Coltrane) to comfort him about his beloved creature Buckbeak the Hippogriff getting executed for a crime it has not committed; then the three find themselves in the Shrieking Shack (an
abandoned house) for a confrontation with Sirius (Gary Oldman), Professor Lupin (David Thewlis) and Peter (Timothy Spall); after that Harry and Sirius are attacked by the Dementors (the dark beings that suck away people’s souls) but saved just in time by a mysterious figure whom Harry believes is his deceased father just before Harry loses consciousness. Then the film reveals that Hermione is in possession of a Time Turner, a device that allows the user to travel back in time. And so the second round of the same sequence of scenes begin: Harry and Hermione see their earlier selves visiting Hagrid while secretly freeing Buckbeak the Hippogriff from being executed; then they see their earlier selves entering the Shrieking Shack while they wait for the earlier confrontation to pan out; last the future Harry rushes to the scene where his earlier self is being attacked by the Dementors hoping to see his mysterious saviour, or his deceased father as he insists. Harry finally realises that no one else is coming except himself, he conjures a powerful spell to ward off all the attacking Dementors. Like a Heinlein story, these two rounds of repeated scenes constitute a perfect, and never-ending, circle, especially in Harry’s saving himself which constitute a causal loop paradox. The paradox is that since he has already witnessed his future self, as the mysterious figure, successfully conjure a difficult spell which until that point Harry has not been successful in conjuring, is it possible for his future self to fail to conjure up the spell hence creating a paradox, or is it possible for his future self not even to try to conjure the spell but still be successful simply because he has already seen himself doing it? Paradoxes are beyond the scope of this chapter to discuss. But these two rounds of what essentially are the same sequence of scenes, only seen from different points of view, perfectly illustrate the “same but different” theme that has been alluded throughout this entire thesis. It also illustrates the need for an aesthetic of repeats for backwards time travel to be successfully portrayed in time travel films.

The Back to the Future series plays on the aesthetic of repeats on multiple occasions. The makers of this film series have crafted the mise-en-scène in these repeated scenes to resemble one another so that the similarity alone can act as a visual comedy. For instance, the Courthouse Square in 1955 in BTTF (Img. 2.4.1) has all of the features that the same place in 2015 in BTTF2 (Img. 2.4.2) has, including the cinema, the cafe, the petrol station, etc. However, the 2015 version of these features is dressed in imaginary futuristic technologies such as the holographic shark that has been mentioned above. Meanwhile, in 1885 in BTTF3, the entire Courthouse Square (Img. 2.4.3) is yet to be built, only the structure of the courthouse is seen to remind the spectator that they are in fact still looking at the same place, only in a very different time. In a corner of Courthouse
Square is the establishment that has seen its transformations through the different times the film series have traversed through. In 1955 in *BTTF*, it is the quintessentially 50's Lou's Café (Img. 2.5.1); in 2015 in *BTTF2*, it is the nostalgic Café 80's (Img. 2.5.2); and then in 1885 in *BTTF3*, it is the old Westerns-style Palace Saloon (Img. 2.5.3). Interestingly, the three shots that depict Marty's entrance to each of these three different (but same) establishment follow very similar geometry. Another example of the repeated use of similar arrangement of mise-en-scène that is used for comic effect is each of the three times when Marty wakes up after somehow getting knocked out, each time being shocked by the slightly different sights, different versions of his mother (all of whom are played by Lea Thompson). In *BTTF* (Img. 2.6.1), Marty wakes up thinking his travelling to 1955 has been all just a dream. He wakes up beside a shadow with the voice of his mother. He believes he is back in his own time of 1985 only to be shocked by the sight of his mother being as young as he is when the shadow reveals. Similarly, in *BTTF2* (Img. 2.6.2), a similar tactic is deployed when Marty wakes up in 1985A, where he is once again shocked by the sight of his mother, but with a marked difference from the image that he is familiar with, namely her thick makeup, and the enlarged breasts. Then finally, in *BTTF3*, in 1885 (Img. 2.6.3), Marty wakes up to his great-great-grandmother (also played by Lea Thompson). This time, Marty is less shocked, perhaps because he is already used to the previous two (as the spectator is and is already accustomed to this visual joke), and also
perhaps because the setting of 1885 is so drastically different to the other times that he has found himself in; not to mention that this time the woman in question is not actually his mother. Marty finds the sight of his great-great-grandmother resembling her mother intriguing. A strong sense of family bond beckons and he even offers to take care for a while of her baby, who would become his great-grandfather.

In the Back to the Future series, the aesthetic of repeats acts mainly as visual comedy moments. For other time travel films, repeated use of certain elements of the mise-en-scène acts as a visual cue to inform the spectator that they are witnessing a point in time that they have already seen from a previous scene, hence helping the spectator understand the otherwise complex structures of time travel narratives.

Besides being applied locally to a film, or a film series (as in the BTTF series), as we have seen earlier in The Time Machine (2002), an aesthetic of repeats can also be applied on many different levels. The many references the film has made that point towards both The Time Machine (1960) and the original novel by Wells signal that it is repeating some of its source materials; not to mention that remakes and adaptations are themselves already a kind of repeat, one that is the 'same but different'. The ‘different’ in the ‘same but different’ is crucial as there simply cannot be a remake or adaptation that is ‘same with no difference at all’. Even a remake as faithful to the original as Psycho (Gus Van Sant, 1998), which can be considered simply as a colour version of Psycho (Alfred Hitchcock, 1960), is different to the original, beyond simply the difference in colour, the cast, and a few updates to fit its time. 24 Hour Psycho (Douglas Gordon, 1993) may have changed only one thing from the original Psycho (1960) — its frame rate down to approximately 2 frames per second making the run time 24 hours, but the difference is much more significant.

The aesthetic of repeats is essentially synonymous with the aesthetic of ‘same but different’. A repeat is only a repeat when there are some elements of the repeat being different, otherwise, it would simply be a 'copy' and not a repeat. As we will see in Chapter 4, the Freudian concept of nachträglichkeit will be the key to understanding repeats and ‘same but different’ aesthetics.
3. The logic of cause-and-effect

The third common characteristic of time travel films is the least obvious, but perhaps the most important: the reliance on the logic of cause-and-effect. In The Time Machine (1960), apart from the implied intellectual curiosity, it is unclear why the time travelling protagonist would like to embark on his time travel journey. The Time Machine (2002) supplements the lack of reasoning behind the time traveller’s drive to travel in time by inserting a new backstory: because Hartdegen has lost his beloved fiancée, he needs to travel back in time to save her. Before he embarks on his first time-travel journey, his conversation with his friend Filby (Mark Addy) is perhaps most revealing in the importance of the cause-and-effect logic in one’s motivation to time travel. After the death of his fiancée, Hartdegen becomes reclusive. Filby tries to convince him that her death is not Hartdegen’s fault. Hartdegen, in a slightly manic manner, replies, “No, it wasn’t my fault. Maybe we should blame Mrs Watchit for picking up the ring from the jeweller. Or the jeweller for making it. Or the poor bastard who tore the stone from the earth. Maybe I should blame you [Filby] for introducing me to Emma [his fiancée] in the first place.” Of course the direct course of Emma’s death is the mugger who stabs her. However, the chain of cause-and-effect, as Hartdegen’s reply has demonstrated, does not end there. There is an endless chain of cause-and-effect in which the time traveller can attempt to change in order to change the outcome, the final effect. The narrative of The Time Machine (2002) also follows a chain of cause-and-effect: as Hartdegen fails to save his fiancée even after he has travelled back in time, he sets off to the future looking for answers as to why he cannot save her the second time around. Eventually, the intelligent Über Morlock (Jeremy Irons), a character that is not found either in Wells’s original or the 1960 film, offers Hartdegen a resounding resolution. The Über Morlock explains that Hartdegen creates the time machine because he wants to save his dead fiancée, Emma; if Emma were saved, there would be no reason for him to build a time machine in the first place; hence he would not have the means to travel back to save Emma. Therefore, to keep the integrity of the cause-and-effect chain, Emma has to be dead otherwise it would create a paradox.

In fact, cause-and-effect relations are very much the driving force behind any time-travel narrative. For instance, in The Terminator, the Terminator travels back in time because Skynet needs John Connor eliminated before he becomes the formidable underground leader that he is. For John Connor to be eliminated, his mother, Sarah, will
have to be eliminated in the past, so that John will not be born in the first place. Then, because all of the above needs to be prevented for the survival of future human race, Reese travels back to the past to save Sarah from the Terminator.

In *Back to the Future*, Marty is forced to travel back to 1955 because a group of terrorists are attacking him. In *Back to the Future Part II*, Marty and Doc need to travel back to 1955 again because Old Biff (of 2015) has created an alternate timeline by bringing back the sports almanac to his younger self. And then, in *Back to the Future Part III*, Marty has to travel further, into 1885, because Doc is inadvertently sent there and has only less than a week to live because he offends Buford “Mad Dog” Tannen, Biff’s great-grandfather.

As we can see, cause-and-effect runs through the motivations for making time travel journeys. This will be the main focus of Chapter 5.
Chapter 3:
The cognitive spectator: Rear Window and Citizen Kane

“You know, Mrs Beragon, being a detective is like... well, like making an automobile. You just take all the pieces and put them together one by one. First thing you know, you got an automobile. Or a murderer. And we got him.”

Inspector Peterson, Mildred Pierce (Michael Curtiz, 1945)

In Chapter 2 I demonstrated how the time travel narrative in Back to the Future Part 2 has conflated the two models of time travel\(^1\), which, I have claimed, risks the entire enterprise of time travel falling apart. However, while the analysis in Chapter 2 has somewhat proved my point, the truth of the matter is that it has not fallen apart. One of the three characteristics I have drawn from time travel films is their complicated narrative structure, of forwards and backwards time travel and alternate timelines (such as ‘1985A’ in BTTF2). Complex narrative structures are one of the key pleasures of time travel films. However, has every spectator of the BTTF series realised the logical inconsistencies I have detailed in Chapter 2? As with the case of the logical inconsistencies in the Kung Fu Panda films that I have demonstrated in the Introduction, it has taken me quite a few repeated viewings of the films, quite a few pages and, in the case of BTTF, quite a few diagrams, to illustrate the logical inconsistencies in the BTTF series, the spectator is hardly likely to notice any of them, especially when they watch the films for the first time. Also, more importantly, does it actually matter if the spectator has spotted these inconsistencies? The Back to the Future film series remains one of the most loved and most successful films about time travel. The inconsistencies detailed in Chapter 2 have hardly dented the experience and the understanding of the films’ narratives. There seems

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\(^1\) The same ‘mistake’ is also committed by the first instalment of the series. But in BTTF2, it is more obvious.
to be a gap between the process of narrative comprehension and the detailed analysis I have laid out in Chapter 2.

In order to investigate these unnoticed logical inconsistencies, this chapter will go back to the basics of narration and narrative comprehension — the ‘logical’ part in the gap between the logical and the illogical, as demonstrated by the BTTF series. The examples used in this chapter, namely Rear Window (Alfred Hitchcock, 1954) and Citizen Kane (Orson Welles, 1941) do not feature time travel in their narratives. Time travel narratives usually involve complicated structures, hence, by considering classical narrative structures, the basic mechanics of narration and narrative comprehension will become more apparent, which, in turn, can be applied to the more elaborate narratives that involve time travel. However, this is not to say that the examples I have chosen are ‘simple’. As we will see in this chapter, Rear Window is a canonical example that perfectly illustrates how the first sequences of a narrative film subtly ‘train’ its spectator and equip them with the necessary tools to comprehend the main plot. To illustrate how the spectator comprehends a narrative, David Bordwell borrows the terms used by Russian Formalists in narrative theories, syuzhet (plot) and fabula (story), to develop a problem-solving model of narrative comprehension, using small pieces of information given by the film to build the bigger picture (the story itself). For this, I have selected Citizen Kane as an example because it quite simply encapsulates the mechanics of narration and the structure of narrative comprehension. While Citizen Kane does not feature time travel as such, it does have certain qualities of time travel, mainly due to its overall structure comprised of flashbacks, which proves that films do not need explicit time travel references for their time travel qualities to shine through. This is one of the overriding themes of this thesis. The question “what is Rosebud?” is posed to the spectator right from the start and represents the emblematic ‘problem’ in the problem-solving model of narrative comprehension. I shall also be using diagrams to show how “what is Rosebud?” is navigated within the spectator’s mind as the film progresses. These diagrams will culminate in those that will be used in the following chapters that share the same shape and structure as the two-dimensional model of time developed in Chapter 2 inspired by Meiland, Bergson, and Minkowski. This shows that traversing the narrative timelines in the film world has a similar process as travelling through time, both of which can be represented by the Minkowski light cones. Hence, they illustrate my argument that film spectatorship resembles a time travel experience. While the analysis of Citizen Kane in this chapter may seem detached from the overall theme of time travel at first — because
this chapter deals with the film/spectator relationship in the spectator’s first viewing — as the discussion progresses to repeated viewing in the next chapter, its relevance to the time travel theme will become clear.

But first, let us get back to the basics of narration and narrative comprehension, which are based upon the cognitive approach to film theory.

A Case for Cognitivism: they are all cognitive theorists

“A Case for Cognitivism” is the title of David Bordwell’s 1989 article, detailing the historical background of cognitive research and illustrating the merits of the cognitive approach in Film Studies, which had been largely dominated by what he then called “Big Theories of Everything” (p11), better known as “Grand Theory”, a term Bordwell and Noël Carroll use in their edited volume Post-Theory (1996). Grand Theory is sometimes known as “SLAB theories”, referring to Saussure, Lacan, Althusser and Barthes, whose ideas and theories were borrowed in the late 60s / early 70s and were morphed into film theory. According to Bordwell, these “Big Theories” / Grand Theory have made Film Studies “too easy”, because a Grand-Theory approach assumes that “film is, by common consent, part of Everything, the theory will directly yield an account of what cinema does (position subjects, reproduce ideology, appeal to fetishism and scopophilia, make itself polysemous in order to create heterogeneous meanings and pleasures).” (1989, p11-12) Bordwell believes that writers practising the Grand-Theory approach to film write with “the blithely sententious air that all problems are on the threshold of solution” (p11), a solution that is reminiscent of what Freud calls Weltanschauung, an “intellectual construction which solves all the problems of our existence uniformly on the basis of one overriding hypothesis, which accordingly, leaves no question unanswered and in which everything that interests us finds its fixed place” (Bordwell, p12, quoting Freud 1966(1933), p622-646). Ultimately, Grand Theory attempts to achieve a goal that is, as its name suggests, too ‘grand’ and too all-encompassing that its failure is inevitable. This means that Grand Theory “is at once too broad and too narrow”: too broad because of the attempt to become all-encompassing, too narrow because “it presumes a limited conception of how one does intellectual work” (Bordwell, 2008, p2), hence over-generalising problems that require more nuanced and individualised approach. Also, Grand Theory utilises a “‘decentred’ conception of the human subject whose claims to rational autonomy are undermined by the role of the unconscious in psychic life, and by the shared background structures of
language, culture, and ideology” (Sinnerbrink, 2011, p16) Bordwell suggests that “the most fruitful research usually tackles middle-range problems” (1989, p12), ones that are localised, specific and not trying to be all-encompassing. Bordwell has chosen an analytic-cognitivist paradigm, which puts the human subject back in the centre, to tackle very specific problems, such as how film narration works in relation to the cognitive activity in the spectator’s comprehension of it. This specific problem — film narration and narrative comprehension — which will be the main focus of this chapter. As Sinnerbrink explains, the new analytic-cognitivist paradigm considers “that the human being is a rational autonomous agent whose cognitive powers are not subject to irrational ‘unconscious’ forces or to ideological manipulation” and “that film is a popular form of entertainment that does not have any pernicious ideological function, that operates using transparent visual and narrative techniques, and that can be analysed and understood in broadly ‘naturalistic’ terms (with reference to physical, physiological, biological and evolutionary processes)” (op. cit., p16-17) Brian Richardson has pointed out that “according to cognitive scientists, narrative is the fundamental mode of human knowledge” (2002, p3). It seems that cognitivism and the investigation of narration and narrative comprehension are a good fit, as Bordwell has demonstrated in his seminal work *Narration in the Fiction Film* (1985).

In *Narration in the Fiction Film*, Bordwell details a historical account of the study of narration, and applies his cognitive approach to film narration, with the focus placed, naturally, back onto the spectator. Bordwell explains, following Constructivist psychology, that narrative comprehension involves “perceiving and thinking”, which is an “active, goal-oriented” process. In this process, the thinking organism receives sensory stimuli, and “constructs a perceptual judgement on the basis of nonconscious inferences” (1985, p31). This process of receiving stimuli to forming a perceptual judgement is reminiscent of Bergson’s (and Deleuze’s) sensorimotor schema, as we have seen in Chapter 2. The similarity between Bordwell and Bergson/Deleuze is a point to which I shall return very shortly. In regards to inferences, Bordwell explains:

Inference making is a central notion in Constructivist psychology. In some cases, the inference proceeds principally “from the bottom up,” in which conclusions are drawn on the basis of the perceptual input. Colour perception is a good example. Other processes, such as the recognition of a familiar face, operate “from the top down.” Here the organisation of sensory data is primarily determined by expectation, background
knowledge, problem-solving processes, and other cognitive operations. (ibid.)

Taking what the film presents as 'clues', the spectator is actively making hypotheses using 'schemata', which are knowledge and ability that we accumulate from our personal growth through our daily lives, our experience. Therefore, according to the cognitive approach, narrative comprehension is a hypothesis-testing exercise in which the spectator keeps making hypotheses until they believe they have found one that can be consistently sustained through the entire narrative. This is similar to what a detective does to solve a case, and this is also why films that involve detection story narratives are usually more conducive to analyses in the cognitive approach (of course this is not to say films of other genres do not allow analyses in the cognitive paradigm).

Let us picture a scene: a man is shown looking around nervously and surreptitiously, the spectator can, through common sense or 'schemata', read his body language and infer that the man does not want to be seen and he may even be doing (or has done or will do) something criminal. And then the spectator can follow the man's eye line and find out what he is nervously looking at is — say, a dog smelling a specific spot of a flower bed, whimpering and attempting to dig. Coupled with the common knowledge that dogs have excellent sense of smell, while some can even work as search dogs, the spectator will naturally combine all of this available information, infer, and hypothesise that there must be something buried underneath that particular spot of the flowerbed and that the man does not want others to find out what is buried. However, if the protagonist of the film, who has also witnessed what the spectator has seen, does not seem to make the same inferences and simply disregard them as everyday occurrences, the spectator may either put their hypothesis on hold while trying to form a new one, or hypothesise that the protagonist has missed the 'clue'. In a later scene, the dog appears to be smelling and digging the same spot of the flower bed again. And, this time, the suspicious man shoos it away. The initial hypothesis of the spectator will naturally strengthen, and the spectator will firmly believe that there must be something buried underneath the spot the dog seems to be so interested in. Then, if a later scene reveals that the dog is strangled and killed, the initial hypothesis is now almost confirmed: the dog has discovered something that has brought death onto itself. If the protagonist then conveniently produces a slide of an image showing the same flowerbed from two weeks previously that shows the flowerbed has been disturbed and makes the same inference as the spectator's initial hypothesis, the
spectator and the protagonist are now in line and the film can continue driving the narrative forward with the spectator carrying on making new inferences and hypotheses, namely ‘what is buried in the flowered?’.

The cognitive spectator is constantly making inferences and hypotheses to try to make sense of what is happening on the screen, and, more importantly, what all that is happening amounts to. Like any hypothesis, the hypotheses that the film spectator makes are, naturally, “open-ended, probabilistic, and subject to correction.” (Bordwell, op. cit., p37) Subsequent scenes can confirm, augment, or completely overturn the hypotheses the spectator has made. There can also be multiple hypotheses that seem equally possible. Normally, hypotheses will be resolved at the end of most films, with the exception of open-ended films. The above scene is, of course, from Rear Window (Alfred Hitchcock, 1954), which, according to Bordwell, “has long been used as a small-scale model of the spectator’s activity.” (p40) Bordwell does not describe the dog with the flowerbed in quite such detail because he has not picked this particular sequence of events to illustrate microscopic nuances in the spectator’s cognitive activity, but he does find the film a perfect illustration for a cognitive model of narrative comprehension on different levels. Bordwell finds one line in particular in the film that sums up the cognitive process of the spectator:

“Tell me everything you saw, and what… you think it means.”

Bordwell takes this particular line as emblematic of what every fiction film asks the spectator to do. He even goes as far as to claim that “[e]very fiction film does what Rear Window does: it asks us to tune our sensory capacity to certain informational wavelengths and then translate given data into a story.” (p46-7) That is, the spectator synthesises everything that he/she sees and hypothesise what all of it means.

This particular line has more significance in the context of this particular film: it marks a turning point in the film. The sudden change of mood also helps give this line its significance. Up to that point, Lisa (Grace Kelly) has been skeptical about Jeff’s (James Stewart) hypothesis that Mr Thorwald (Raymond Burr), the man living in an apartment in the building opposite his, may have killed his wife. Jeff has arrived at his hypothesis from spying on his neighbours using binoculars and a camera with a long telephoto lens. Lisa thinks Jeff’s spying and making wild guesses is, as she puts it, “diseased”. She makes counter-hypotheses to try to convince Jeff that his hypotheses are nothing more than wild
imagination. She even randomly picks a window with closed curtains and suggests that something sinister may also be happening behind the closed curtains. From a previous scene, we know that the window Lisa randomly picks belongs to a pair of newlyweds who are infatuated, but also private about it, hence the closed curtains. So Jeff simply sniggers and jokingly says, “no comment.” Lisa would not have got the joke as she has not seen the newlyweds through that window. This is a joke for Jeff himself, and for the spectator, who has witnessed this previous scene together with him. As a side point, the newlyweds also act as a contrast to Jeff’s own love life with Lisa which, up to this point, is in crisis (as do all of Jeff’s neighbours who seem to illuminate different aspects of his life and anxieties). Lisa’s face suddenly changes, and she looks terrified. Jeff turns around and sees what it is that terrifies her. And then the spectator is able to see what they are seeing: Mr Thorwald in the opposite building is tying an enormous trunk with a thick rope, which concurs with Jeff’s hypothesis about a possible murder. It is then Lisa asks Jeff, “Let’s start from the beginning, Jeff. Tell me everything you saw, and what… you think it means,” while the camera is zoomed into a close up of Lisa’s face as she is saying it, highlighting the significance of this line and this moment that constitutes a turning point. It is a turning point because this is when Lisa starts to take Jeff’s claims seriously, and their love life starts to improve, as seen in Jeff’s more caring tone when talking to Lisa. Hitchcock was a meticulous filmmaker. Everything he put on film seems to have a purpose. He clearly understands the workings of a spectator’s narrative comprehension, and hence how to utilise them to his advantage in his art, as perfectly illustrated in the fluidity of Rear Window and the film’s ability to effortlessly guide the spectator to feel uneasy from the suspense that he is famous for. Robin Wood believes it is “the first of Hitchcock’s films to which the term masterpiece can reasonably be applied.” (1977, p68) Bordwell notes that the film exhibits “the full complexity of the viewing activity” that has made it “an irresistible analogy for the viewing experience”, and that “no film [he knows] fits more snugly into a perspectival theory of narration.” (p40)

One other theory that can also fit ‘snugly’ into Hitchcock’s films is perhaps the psychoanalytic theory, one of the theories, if not the biggest, that make up Grand Theory that cognitivists such as Bordwell finds problematic in Film Studies. For a psychoanalytic reading: Jeff’s inability to move (he is in a wheelchair) represents the ‘lack’ of the psychoanalytic subject, who also coincides with the psychoanalytic spectator who also cannot move when they watch the film (they can pause or walk away but they cannot change the viewing position that the camera imposes upon them); Jeff’s long telephoto
lens that he uses to spy on his neighbours is easily read as the proverbial *phallus* that gives him the (sense of) control over his passive neighbours who do not know they are being spied on (just as the spectator has the ‘misidentified’ sense of control over the film characters); Jeff’s putting Lisa in danger when he sends her to the opposite building can be regarded as a source of sadomasochistic pleasure that satisfies both Jeff and Lisa (which is also backed by the marked improvement in their relationship). All of this shows that Bordwell’s choice of *Rear Window* is interesting. He does not mention any of the possible psychoanalytic readings, as he is a cognitivist who only reads what is presented on the screen and does not make any extra and unnecessary interpretations. And he does not need to anyway, because as far as utilising spectatorial cognitivism goes, Bordwell believes *Rear Window* “at once typical in the job it hands the spectator and extraordinary in the explicitness with which tasks are spelled out”. (p40) What Hitchcock does well in his work is that his films present the palpably visible and the audible elements in an explicit way, but at the same time skilful in such a way that does not make them too explicit as to lose artistic merits of his films. This is what makes his work so conducive to cognitive analysis; so conducive that Deleuze also uses the film in his *Cinema* books, in which he also analyses moving images by differentiating the visible and the audible (which he calls “optical” and “sound” situations) as one example.

In fact, Deleuze’s reading of films is, in fact, similar to Bordwell’s (albeit not as cognition-driven), but he talks of “mental relations” in the image, borrowing Peirce’s “thirdness” which is the mental dimension after the “firstness” and “secondness” in affection and action (1997(1986), p197). In his “movement image” that primarily addresses “spatio-temporal relation”, Deleuze posits that there is a mental image in the movement image that addresses “logical relation.” (ibid.) This is where Deleuze, like Bordwell, uses the same example from *Rear Window* to explain their respective models of film construction and comprehension. After the opening credits, the camera, in one smooth continuous shot, pans from right to left from Jeff’s rear window in his apartment and the spectator sees individual windows on the building opposite and what the occupants behind the windows are doing. After that, still carrying on with the same continuous pan, the camera pans back to Jeff and inside his apartment. Bordwell describes what the film then does, via what is *only* visible on the screen, and describe how it affects the cognitive process of a spectator:
When the camera moves into and around Jeff’s apartment, our inferences must come thick and fast. Track left to reveal his leg in a cast. (How did the leg get injured?) Then to a shattered press camera. (He’s a photographer. Did he break his leg on the job?) Then to photographs of an auto race, a fire, a battered woman, an atomic bomb. (He probably did; he takes hazardous assignments.) Then down a line of cameras and flashbulbs. (Almost certainly a professional photographer.) Finally to a framed negative of a model and to a stack of magazines with the photo on the cover. (He can also do fashion photography.) Yet these inferences remain only probable until the next scene. (Bordwell, 1989, p41)

Deleuze, on the other hand, simply points out that “[it] is the camera, and not a dialogue, which explains why the hero of Rear Window has a broken leg” (p201). For Deleuze, the images that Bordwell has described above are showing mental relations, as are perfectly illustrated by Bordwell’s almost schizophrenic monologue that shows the mental workings within the cognitive spectator. Deleuze believes that Hitchcock has “invent[ed] the mental image or the relation image” and brought “to completion the whole of the cinema by pushing the movement-image to its limit” (p204) by including the spectator in the film through the mental image. As Naomi Schor (1980) puts it, the cognitive process of the spectator should not be thought of “as something that is done to fiction but rather as something that is done in fiction” (p168). Edward Branigan (2002) also shares the same sentiment and asserts that “the final author of a film is the spectator” (p111). The spectator and their cognition make part of the film, without which the film is not complete. To some extent, a narrative film is not yet a film without having been seen by a spectator who tries to make sense, hence completes, the narrative. The film/spectator relationship is two-way.

This film/spectator relationship also recalls the way Bergson defines “matter”, the perception of “matter”, and his system of “images” (which I have discussed in Chapter 2) in Matter and Memory (2004(1896)), from which, Deleuze draws a lot of influence in his Cinema books. Bergson defines “matter” as “an aggregate of images” (p.vii), as illustrated by his ‘inverted light cone’, which is an aggregate of stacking progressively smaller planes (Chapter 2). Following his definition of “images”, which lie between an idealist representation and a realist object, Bergson is trying to find the middle ground between the two extremes — realism and idealism. In Bergson’s system, the inherent properties of an object (e.g. its texture, its colour) are “self-existing” images before being
perceived. Meanwhile, in Bergson, our perception of the “self-existing” images (e.g. our take of its texture and its colour) are also “images” — the nerve signals that run through our body’s nervous system and to our brain. In Bergsonian terms, the film/spectator relationship is an interaction between the film (image) and the spectator (image). Before the spectator’s cognitive participation, the film is only a “self-existing” image, reminiscent of Schrödinger’s cat which may or may not be alive (or both). The cognitive activity by the spectator completes the film’s existence.

Bergson’s project came from his desire to understand human cognition, in that he was trying to understand what memory was: for instance, why a person can have a clear understanding of something even though that something is not physically present, be it a reflex action (which modern science does not classify as having anything to do with memory), a learnt habitual action, or a memory of a past event. As stated in Chapter 2, Bergson is famous for not being fond of the cinema in its inception, and his work was never meant to be about the cinema (even though he has used the term “cinematic” to describe some of the workings of memory in Creative Evolution; but his “cinematic” may be better understood as ‘mechanical’). But, Deleuze has noted that, by studying on memory, it was Bergson himself who invented the movement-image, which Deleuze believes is cinematic (not “cinematic” in the sense found in Bergson’s Creative Evolution, which means mechanical and discontinuous). Deleuze believes Bergson has missed the obvious linkage between the movement-image (as a way to understand memory) and cinema. “The discovery of the movement-image, beyond the conditions of natural perception, was the extraordinary invention of the first chapter of Matter and Memory.” (2009(1986), p3) Meanwhile, in 1907, in Creative Evolution, Bergson describes our slices of memory, or “snapshots”, are set in motion in “a kind of cinematograph inside us” as though “we had always had cinema without realising it” (p2). But the “cinema” Bergson had in mind, as mentioned in Chapter 2, was a repeat of Zeno’s paradox that gave false movement to still images, rather than ‘movement-images’ as Deleuze has insisted. For Deleuze, Bergson at once understood the cinema (in Matter and Memory at cinema’s inception), but also misunderstood it (in Creative Evolution, ten years later). Deleuze simply re-discovers the potential of Bergson’s philosophy and applies it to his two Cinema books. The Bergsonian movement-image follows Bergson’s sensorimotor schema of matter, perception, and system of ‘images’. In cinema, Deleuze’s movement-image follows what he calls “organic narration” (Cinema 2, p123) that characterises most
“conventional” narrative films which are the biggest focus of Bordwell’s work as well as the majority of films discussed in this thesis.

Meanwhile, like Bergson’s project in Matter and Memory, Bordwell’s project in narration also hinges upon the workings of human cognition. However, unlike Deleuze whose line of thought goes from Bergson’s system of cognition (the movement-image) to re-discovering that cinema follows a similar system, Bordwell takes the reverse of that same route in that he goes from observing cinematic narrative devices to finding their roots in human cognition. Even Bordwell himself describes his own methods as “reverse-engineering”, because “the regularities of narration revealed by film analysis indicated that films were designed to elicit particular activities from spectators” while “many of those activities had already been identified by researchers in perceptual and cognitive psychology” (2009, p360). Bordwell writes, “In general, cognitive theory wants to understand such human mental activities as recognition, comprehension, inference-making, interpretation, judgment, memory, and imagination.” (1989, p13) This description of cognitive theory also describes Bergson’s project in Matter and Memory. What is different is that Bergson’s philosophy is more akin to what Bordwell calls “classic behaviourism”, which “insists that human activity can be understood without appeal to any ‘private’ mental events”(ibid). While Bordwell purports an emphasis on empirical, connotation- and ideology-free scientific approaches, he also seems to be criticising that classic behaviourism is almost “too scientific” without being backed by actual science, and at the same time lacking the necessary socio-cultural touch. In fact, when Bordwell indicates that people from non-Western cultures most likely follow narratives in slightly different ways from “schooled perceivers in contemporary Western culture” (1985, p34), he acknowledges the limitation of his concepts of film narration in that his cognitive spectator, like the one he describes watching the sequences of Rear Window, may only inherently be a “Western” spectator. Despite the heavy emphasis on hard science, he does not imply that a “Western” spectator and a “non-Western” one differ scientifically (e.g. anatomically); rather, the difference is purely cultural. Much like Bergson who seeks to find the middle ground between the two extremes — realism and idealism – Bordwell’s cognitive approach to cinema seems to be built upon a middle ground between two often antagonistic sides: pure science and purely ideologico-political theories that he and other cognitivists have called Grand Theory. Bordwell believes that in order to understand human action, “we must postulate such entities as perceptions, thoughts, beliefs, desires, intentions, plans, skills, and feelings. That is, there is a gap between intelligible and
intentional human action and the physiological mechanisms that execute it.” (1989, p13-14) The ‘gap’ between the ‘action’ and the ‘mechanism’ can be sometimes explained scientifically (e.g. the involuntary “startle response” in horror film spectatorship (Carroll, 1996b, p50)), and sometimes culturally (as in customs and beliefs). The fact that Bordwell links “action” with particular “entities” such as “perceptions” and “thoughts” shows how close the Bordwellian paradigm is to Bergson’s project in *Matter and Memory*. When Bordwell preliminarily describes cognitivism, he writes, “So much is everyday wisdom” (1989, p14). Incidentally, when Bergson justifies his unifying of matter and thought as one system of ‘images’, he believed his concept was “simply that of common sense” (2004(1896), p.viii).

Meanwhile, this cognitive ‘gap’ between ‘mechanism’ and ‘action’ is a gap between the inside and the outside, which, like an unexpected plot twist, evokes psychoanalysis that most cognitive theorists condemn. In fact, when Freud started his psychoanalytic project he also intended it to be purely scientific, certainly more so than Bergson’s unapologetically pure philosophy and Bordwell’s purported emphasis on empirical science — Freud was a practising psychoanalyst and therapist after all. As yet another cosmic coincidence, Freud’s *A Project for a Scientific Psychology* (1895), upon which he built his psychoanalysis, was published in the year cinema was “born” (and around the same time as *Matter and Memory*). Freud originally set out to investigate illogical human responses, in which the “gap” between ‘mechanism’ and ‘action’ is not connected. In essence, Freud’s original intent was to study the flip side of what Bordwell studies in his cognitive approach. In Bordwell, the cognitive spectator follows all of the ‘cues’ and ‘clues’ that the film presents and logically forms hypotheses. In Freud, he is more interested in psychosis, the illogical, or unintentional, reactions in the person’s cognitive activity. Following this, it is possible to argue that Freud, Bergson, and about 90 years later, Bordwell, all share a desire to understand the cognitive of the human mind. They are all cognitive theorists. Whereas most cognitivists (in the conventional sense) would distance their work from the now hugely contested psychoanalytic film theory, I propose that a revisit to Freudian psychoanalysis, which was undoubtedly cognitive in its origin, could yield some useful results. In Chapter 4, I shall be delineating what I consider to be the origin of Freudian psychoanalysis, and propose that a psychoanalytic film theory, different from the 1970s classical type, is still very much viable alongside cognitivist film theory. Meanwhile, in this chapter, I am concentrating on the Bordwellian cognitive approach to film narrative. Cognitivism represents the *logical* in the tension between the *logical* and the *illogical* that
has been started right from the beginning in my reading of the *Kung Fu Panda* films, to the illogical confusion of time in the *Back to the Future* series. In passing, Bordwell does mention the existence of an illogical cognitive process: the problem of “failures and deficits of human mentation”, in which one prominent example is the “gambler’s fallacy” (1989, p13). In such cases, the cognitive faculty of the spectator (or the “gambler” in the “gambler’s fallacy”) breaks down and believes the illogical to be logical. The illogical will be the focus in the subsequent chapters.

But first, we have to understand how the logical cognitive process works. In this chapter, I will demonstrate how a spectator’s basic cognitive process works, in progressively more complex ways. I shall continue the analysis on *Rear Window* and then move onto *Citizen Kane* (Orson Welles, 1941) for a more expanded analysis. Here, I define a “spectator” in the same way as Bordwell does, when he tries “to explain the formal conditions under which we comprehend a film. This means that here the “spectator” is not a particular person, … [n]or is the spectator an “ideal reader,”… the most fully equipped perceiver the text could imagine” (1985, p30). This generic spectator that we are trying to define here “acts according to the protocols of story comprehension”, and this spectator is “active” in their comprehension - their perceiving and thinking, the “goal-oriented processes” that Bordwell describes. Both *Rear Window* and *Citizen Kane* use what Bordwell calls “canonic narration” (p157), in which the film has a principle protagonist with very defined and distinct character traits who “struggle[s] to solve a clear-cut problem or to attain specific goals,” and is also “the principal causal agent, the target of any narrational restriction, and the chief object of audience identification.” *Rear Window* may be the most 'canonic' as the narrative is linear and chronological, the main protagonist has well-defined problems (Jeff, broken legs, romantic troubles), specific goals (to catch Thorwald) and is also the “chief object of audience identification” (as the spectator tries to solve the murder mystery together with Jeff). Then, *Citizen Kane* complicates its narrative structure by being principally driven by multiple flashbacks, as well as by having the titular character (usually a source for audience identification) both the problem and the goal.

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2 Gambler’s fallacy is one where the gambler conflates the logic of cause-and-effect and the logic of chance (see Chapter 5). For example, if the chance of winning a certain game is 1 in 20, after losing 19 times, a gambler who falsely believes in the gambler’s fallacy might think that he will have a higher chance of winning his next game, whereas the truth is that his chance of winning remains 1 in 20.
The spectator's cognitive activity: *Rear Window*

Whilst illustrating the cognitive process of *Rear Window*, Bordwell claims that "every film trains its spectator." (1985, p45) What is implied is that *Rear Window* is but one perfect illustration of that "training" programme that every narrative film has, although some do it better than others. The scene described above where the camera guides the spectator through the mise-en-scène of and around Jeff’s apartment is one good example of such spectatorial “training”. In fact, the scene that immediately follows is even more explicit in the construction of the cognitive film-spectator relationship (film trains spectator, spectator constructs film). However, unlike the previous scene whose guiding is done by the camera, this next scene primarily uses the dialogue as the main tool to guide the spectator to gather information.

Jeff receives a call from an unknown man, and the phone conversation that they have reveals *everything* that the spectator need to know at that particular moment in time, in an explicit fashion, if not a bit *too* explicit. The man on the other side congratulates Jeff, and further explains, “This is Wednesday, seven weeks from the day you broke your leg. Yes or no?” The spectator now knows it is a Wednesday, and that Jeff’s injury is not permanent and will recover soon.

Jeff: Gunnison, how did you get to be such a big editor with such a small memory?

The spectator now knows the man on the other side of the phone line is an "editor" of some sort, called Gunnison, but he has got his recovery date wrong, as Jeff later explains he is not getting out of his "plaster cocoon" for another week. The editor then speaks of him missing "my best photographer" while Jeff is missing out on a "big assignment". It is at this point the spectator can confirm that Jeff is definitely a professional photographer, and a very good one at that. Meanwhile, while having this conversation, Jeff is staring at the building opposite and the camera also shows what Jeff is looking at: an attractive ballerina (who has already appeared during the opening sequence and is therefore established in the spectator's mind) is dancing in her apartment. Jeff starts to look elsewhere, at the apartment directly below, in which the woman inside looks up at the ceiling in contempt. Hence the spectator gets a sense of what Jeff habitually does in his

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3 Unlike the 1998 TV remake starring Christopher Reeve who in real life and in character was permanently quadriplegic.
apartment — casually spying on his neighbours’ daily lives, as well as a general idea of the relationships among his neighbours. The conversation continues, where the editor Gunnison speaks of getting replacement photographers for the aforementioned "big assignment" that was originally for Jeff. Jeff is visibly upset by the news.

Jeff: I get myself half-killed for you, and you reward me by stealing my assignments!
Gunnison: I didn't ask you to stand in the middle of an automobile racetrack!

This recalls one of the photographs shown in the previous scene. The photograph is shot at an impressive angle, showing the moment two race cars rolling in midair after a crash, with one wheel flying towards the direction of the photographer.

This connects all the dots for the spectator on all the questions they may have in the earlier scene, as described by Bordwell above, in his ‘schizophrenic’ questioning and hypothesising. Back in the earlier scene, among the photographs of a car race that Bordwell mentions, one of them is an impressively dramatic shot of a crash clearly shot from inside a race track. At this point the spectator understands fully Jeff's adventurous nature (which will contrast very strongly when his love interest Lisa crosses the line when she dangerously investigates the possible murder and he looks visibly worried and distressed), and how he got his leg broken that has led him to his current predicament of being bound to a wheelchair in his apartment. When the editor rejects Jeff's plea to be reinstated, he implores in desperation.

Jeff: If you don't pull me out of this swamp of boredom, I'm gonna do something drastic!

Here, as with most conventional narrative cinema, the spectator gets a sense of a foreshadowing that something "drastic" is going to happen. Jeff is asked about examples of "drastic" actions that he will do.

Jeff: (Threateningly) I'm gonna get married. Then I'll never be able to go anywhere.

And as he elaborates on his possible married future, he is now staring at the windows of the Thorwalds' apartment, to where the camera is now panned. What Jeff describes in his
‘future married life’ coincides with what the camera is showing of the Thorwalds, as though Jeff is projecting himself upon Mr Thorwald, and speaks sarcastically

Jeff: (Sarcastically) Yeah, can’t you just see me? Rushing home to a hot apartment and listen to the automatic laundry and the electric dishwasher and the garbage disposal and the nagging wife.

When Jeff is describing his ‘future married life’ in detail, the Thorwalds in the opposite building are doing exactly what is being described by Jeff. This is such a clever move from Hitchcock as, in one stroke, the film tells the spectator of the tension between the Thorwalds (which will soon lead to the central murder plot line), as well as Jeff’s disdain to a tied-down married life (which will lead nicely to the tension he and Lisa will have that acts as the romantic subplot). The conversation carries on to give us more information. Gunnison suggests that modern wives “discuss” rather than “nag”.

Jeff: (Indifferently) Is that so? Is that so? Maybe in a high-rent district, they discuss. In my neighbourhood, they still nag.

This, together with the fact that Mr Thorwald soon throws the newspaper in hand angrily to the floor and the Thorwalds’ conversation becomes more audible, confirms that Mrs Thorwald is indeed ‘nagging’, which, in turn, confirms the tension between the couple that will act as a major cue for the main murder plot. Meanwhile, quite subtly, this also establishes that Jeff is not living in what he calls ‘a high-rent district’ (if the tight spacing between the flats and the buildings have not already conveyed this fact), which will explain some of the tension he will have with Lisa, who is glamorous and does live in ‘a high-rent district’; hence further laying the foundation for the romantic subplot.

What this phone conversation scene does is to provide the spectator with a myriad of information — the cause and the prospect of Jeff’s injury, Jeff’s adventurous character and what it may lead to, as well as background information about Jeff’s attitude towards his love life for when Lisa first appears on screen — whilst guiding the spectator to be unwittingly ‘trained’ how to read what follows as they look outside Jeff’s rear window with Jeff (with point-of-view shots showing Jeff’s view from behind the window) and making one-sided but increasingly conclusive judgments about the possible murder. Again, as Bordewell proclaims, “every film trains its spectator” (1985, p45). Rear Window is
exemplary for this observation. To round off the above ‘informative’ and ‘training’ sequence, Jeff hangs up the phone and he has an itch under his cast on his injured leg that he cannot reach. He pushes a wooden scratcher into the cast with a bit of difficulty, but then he gets his relief, with James Stewart’s slightly exaggerated facial expression ensuring us knowing that Jeff gets his gratification. Although the Bordwellian cognitive reading often warns us not to read overly beyond what is presented on the screen, the metaphorical ‘itch’ is simply too apparent as a visual metaphor for Jeff’s current predicament, and as yet another foreshadowing in that Jeff will try, and will get to gratify his ‘itch’ for his adventurous character. Sure enough, when Jeff suspects that Mr Thorwald has murdered his wife, he spies on him with his binoculars and long telephoto lens to gather information, much the same way as the spectator has been trained to gather and infer on information they have been presented with in the previous few sequences. In the end, the main murder plot of Rear Window becomes one where both the protagonist on screen and the spectator both solve the possible murder. It is not to say that the spectator necessarily identifies with Jeff and lets him do all the murder-solving for themselves (as is stipulated by “subjection position” theory of the Grand Theory), even though it may well be the case in some spectatorship. What is suggested here is that while Jeff is solving the murder case on screen, the spectator tries to solve it on their own terms, with Jeff and Jeff’s inferences being only some of the tools to aid their own murder-solving.

Film narration:

In the two-way film-spectator relationship (Fig. 3.1), the spectator’s cognitive process forms an arrow from themselves to the film; Rear Window makes the perfect example of demonstrating how spectatorial cognitive process works on both the “micro” and the “macro” levels. On the “micro” level, the film has individual sequences that serve as ‘training’ the spectator to piece information together. The opening sequence uses the camera (and no dialogue) to give the spectator information on the protagonist’s, Jeff’s, surroundings, his current predicament, and clues as to why he has a broken leg. The very next scene shows Jeff’s telephone conversation with his magazine editor, Gunnison; using mainly dialogue this time, the spectator is provided with even more information on Jeff’s injury, his adventurous nature, as well as his romantic disposition. On the “macro” level, the main murder plot that drives the entire film also follows the same pattern, effectively putting the spectator’s ‘training’ in the opening few sequences to good use, as they try to solve the murder mystery at a similar pace as Jeff is solving the murder himself.
Meanwhile, *Rear Window* is also an excellent lesson on the arrow from the film to the spectator in the film-spectator relationship — narration. It may seem rather strange that I have chosen first to detail the arrow from the spectator to the film and then the other opposite arrow, as Bordwell himself in *Narration in the Fiction Film* has the reverse order (he first explains narration, then cognitive narrative comprehension). However, I believe that the smaller-scale cognitive understanding in *Rear Window* — from individual scenes with localised mise-en-scène elements, expanding to the larger framework that is the main murder plot — provides a metaphor for what is to come in the discussion of film narration, in particular, *syuzhet* (plot) and *fabula* (story) — *syuzhet* plot is the smaller elements whereas *fabula/story* is the ‘larger framework’ that the spectator’s cognitive ability to expand. It is as though the spectator’s cognitive activity we have seen belongs to the one-dimensional, whereas the film’s narration (*syuzhet and fabula*) belongs to the two-dimensional. The parallel between film narration and the two-dimensional analyses in Chapter 2 will become clear once the concepts of *syuzhet* and *fabula* have been explained. However, before that, we shall look at a brief historical account of the theory of film narration, which also coincides with part of why Bordwell felt the need to put forward “a case for cognitivism”, recalling the beginning of this chapter.

Film as a medium has certain affinities with other media that had existed before film was born, such as paintings and theatre. In *Narration in the Fiction Film*, Bordwell presents that film narration as descended from a long line of narrative traditions, all the way from Plato, who defined narration as a “linguistic activity” (p16), and Aristotle, who defined it as “imitation” (p3). These definitions of narration would form into two traditions of narration:
the mimetic tradition, in which narration is an act of showing; and the diegetic tradition, in which narration is the act of telling. Incidentally, the first sequence of Rear Window (the camera pans to reveal Jeff’s neighbours as well as his own apartment) seems to be following the mimetic tradition (showing) as only the camera shows information to the spectator, and the second sequence (the phone conversation) follows mostly the diegetic tradition (telling) where the dialogue does most of the work.4

In Bordwell’s historical account, theories on film narration before 1960 derived from the mimetic tradition. According to Bordwell, Hugo Münsterberg and Rudolf Arnheim were the first to theorise film under the mimetic tradition. Münsterberg, in particular, who wrote arguably “the first book of film theory” (Bordwell 2009, p356), The Photoplay: A Psychological Study (1916), argued that “the distinctive feature of cinematic storytelling was its ability to mimic not only the content of the real world but also the processes by which we conceive it.” The mimetic tradition was carried all the way to Bazin, who, according to Bordwell, “also acknowledge[s] the centrality of visual spectacle.” (1989, p9)

However, Bordwell believes that the mimetic approach struggles to distinguish the film medium from theatre, from which many writers pre-1960 drew most of their comparison: “however much they strive to distinguish cinema from theatre, [none of the writers in the mimetic tradition] seeks to define cinema outside the domain of spectacle.” (p9) The over-emphasis on ‘spectacle’ leads to one strand of film theory which Bordwell thinks is, if not entirely erroneous, incomplete — the assumption of an ‘invisible observer’. The ‘invisible observer’ model, according to Bordwell, was best described by V. I. Pudovkin in Film Technique (1926) who asserted that “the camera lens should represent the eyes of an implicit observer taking in the action.” (Bordwell, 1989, p9) The “invisible observer” model hints at the implication that the camera is analogous to the spectator’s eyes. Bordwell argues that it “is not hard to find empirical fault with the invisible observer account. It must ignore many stylised techniques which cannot correspond to optical processes (split screen, wipes, negative filming, “impossible” camera positions and movements). It presupposes continuity cutting to be the closest representation of actual human

4 A purely diegetic narration in film would be the use of a narrator and nothing more. In the phone conversation scene in Rear Window, because the information being spoken is so explicit, the two characters in the conversation are almost acting as narrators, ‘telling’ the information directly. However, as Jeff is talking on the phone, the camera is sometimes showing visual elements that supplement Jeff’s ‘telling’. Hence, the phone conversation scene is not purely diegetic, but mainly diegetic.
perception”, which is certainly not the case, as our perception is continuous without ‘cuts’ (it seems to recall Bergson’s disdain for the cinematic apparatus). Bordwell believes that the diegetic approach “forgets that even in ordinary film, the camera’s position changes in ways that cannot be attributed to a shift in a spectator’s attention.” Therefore, the “invisible observer” can only work at a “localised, ‘atomic’ level”, and can only explain some film techniques, but definitely not “whole sequences or films” (ibid.).

Meanwhile, the diegetic tradition came into prominence after the rise of auteurism in the 1960s, which, as Bordwell describes, constitutes “an interregnum” (1996, p4) in the theories about cinema from the previous years and started to steer film theory into the cultural and the political by means of focusing on semiology and structuralism of Barthes and Saussure (and would later form the S.L.A.B. theories, or Grand Theory). Bordwell has observed that the rise of continental structuralism, in particular, Roland Barthes’ semiology, has led to diegetic theories of film narration. He argued that Barthes’ semiology has prompted a widespread use of Saussurean “theory of signification to nonlinguistic systems” on “all manner of cultural phenomena”, even in painting and theatre both of which were once considered “analysable only through mimetic assumptions” (p17). From then on, “language became the master system”, and as far as film narration was concerned, Barthes declares “that every narration depends upon linguistic codes.” (Bordwell, 1989, p17, quoting Barthes, 1977, p112) This would also mark the rise of the Grand Theories that it may not be an overstatement to say that most cognitivists, such as Bordwell himself, consider as the darkest hour of film theory. Like any use of a Grand Theory which, as Bordwell insists, “discourages a careful analysis of problems and issues” and “encourages a more or less contingent search for second-hand ideas” (1996, p20) semiotics became the go-to theory for any analysis of film narration. And, here, our story of film narration has gone back to the very beginning of this chapter, where Bordwell puts forward “a case for cognitivism”.

Even though theories of film narration have followed both lines of traditions, mimetic and diegetic, Bordwell believes what sets film apart from other narrative mediums is the way the narration is presented, the “film techniques” that cannot always be explained by theories of the mimetic tradition — “mise-en-scène, cinematography, editing, sound” (p50) — that sometimes may conform to the “invisible observer” model, but other times debunk it. On the diegetic front, while Bordwell finds usefulness in certain semiotic approaches, he does not see a direct analogy between language systems and cinema. Also, like the
mimetic tradition, diegetic theories on narration favour only certain cinematic techniques that make linguistic expositions possible. Also, the spectator is portrayed by diegetic theories as being “positioned” to identify with an “all-powerful seeing and … enunciating subject” (p22), which Bordwell does not think is the case for film spectatorship. In Bordwell’s system, rather than being “positioned”, the spectator takes on an active role; also, rather than being all-powerful and all-seeing, they only see what the film presents to them as clues, requiring their active cognitive capacity to make sense of them. Bordwell’s theory of spectatorship is a “problem/solution model… [that] invites [the spectator] to reconstruct decisions made by active agents [the characters], and it treats persons as concrete forces for stability and change (or both)” (1997, p150), rather than being forced to identifying with them, as stipulated by ‘subject position’ of the Grand Theory.

**Syuzhet and Fabula: Citizen Kane**

Neither mimetic nor diegetic theories of narration can get to the root to the most basic concerns of narration: its structure. This is where two of the key terms in Bordwell’s theory of narration should be introduced: syuzhet and fabula, which Bordwell has borrowed from the Russian Formalists. *Syuzhet*, translated as "plot", is the way the film presents its events. It includes "the totality of formal and stylistic materials in the film… thus includes all the systems of time, space, and causality manifested in the film; everything from a flashback structure and subjective point-of-view to minutiae of lighting, cutting, and camera movement." Hence, *syuzhet* is “in effect, the film before us” (Bordwell, et al, 1985, p12). Meanwhile, *fabula*, translated as “story”, is the “mental construct” (ibid) that the spectator reconstructs from the *syuzhet* into a “chronological, cause-and-effect chain of events occurring within a given duration and a spatial field” (Bordwell, 1985, p49). Bordwell points out that the *fabula* “is never materially present on the screen or soundtrack” (ibid). He also cites Yuri Tynianov, one of the Russian Formalists, that the *fabula* “can only be guessed at, but it is not given.” (Bordwel, 1989, p50, citing Tynianov, 1978, p20) What is given is only the *syuzhet*, and the way it is presented that makes up the film.

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5 In *The Classical Hollywood Cinema* (Bordwell, et al, 1985), the definition of syuzhet (the one I cited above) seems to include “style” (or mise-en-scène). However, in *Narration in the Fiction Film* (1985), Bordwell emphasises that syuzhet and style are “conceptually separate” (p50). In fact, Bordwell also observes some discrepancies in definitions of syuzhet among Russian Formalists. He reports that Viktor Shklovsky, Boris
This is how Bordwell’s cognitive paradigm comes into full flow: while the spectator takes in elements from the *syuzhet* of the film, the film’s narration, it is purely the spectator’s cognitive activity that rearranges the elements in a chronological, comprehensible order — the *fabula* — to try to make sense of what they are seeing in relation to the entire narrative. Crucially, the spectator never gets “maximum access to the fabula” (p54). As Bordwell explains, “every syuzhet uses retardation to postpone complete construction of the fabula. At the very least, the end of the story, or the means whereby we arrive there, will be withheld. Thus the syuzhet aims not to let us construct the fabula in some logically pristine state but rather to guide us to construct the fabula in a specific way, by arousing in us particular expectations at this or that point, eliciting our curiosity or suspense, and pulling surprises along the way.” (p52) This is why the ‘detective tale’ — such as *Rear Window* (in which Jeff acts as an ‘amateur detective’) in the last section, and, as we shall see in this section, *Citizen Kane* (in which Mr Thompson (William Alland), the reporter acts as a kind of ‘detective’ investigating on Kane’s life) — very much encapsulates the cognitive model for narrative comprehension in narrative cinema.

*Citizen Kane* is an excellent example to show that the spectator does not *always* have to identify themselves either with the film’s protagonist or the ‘detective’ figure (who may not be the same character, as in the case in *Kane*). The titular character, Charles Foster Kane (Orson Welles) is dead right from the start. All of his screen time is constituted as the flashbacks of some of the people who have known Kane during his life. As a result, despite being the main character (as most titular characters are), Kane is, rather paradoxically, not the ‘protagonist’ as such, and there is very little reason to suggest that the spectator identifies with Kane. Meanwhile, the role of the ‘detective’ figure falls on Mr Thompson, a reporter who is tasked to find out the finer details of Kane’s life besides facts that are well-known to the public. In the case of *Rear Window*, Jeff is the main character, who has the most screen time, and does amateur detective work that also drives the narrative forward. It is easy to believe that the spectator identifies with Jeff (and it may

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Tomashevsky and Boris Eichenbaum “believed that [although] syuzhet construction and stylistic elements often parallel each other, … [they] occupy distinct domains.” (p345, n8) However, Yuri Tynianov, according to Bordwell’s reading, puts “story linkage” and style under the same bracket of syuzhet. Bordwell finds it to be “structurally congruent with” his conception of syuzhet; however, his “syuzhet” equates to Tynianov’s “story linkage” while Tynianov’s “syuzhet” is what Bordwell calls “narration”. In my analysis, *syuzhet* inevitably involves stylistic elements of the film, whereas *fabula* is the story that the film tells in *chronological order*. 

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well be the case). Meanwhile, in the case of Citizen Kane, technically the spectator’s 
cognitive activity parallels with Mr Thompson’s investigation, however, he is a minor 
character and is rarely seen on screen. Again, there is little reason to suggest Mr 
Thompson can act as a ‘screen surrogate’ for the spectator. The only conclusion that can 
be drawn from all of this is that the spectator is themselves, doing their own ‘detective 
work’ (in this case, piecing together the life of Kane), and, crucially, identifying with no one 
on the screen.

Citizen Kane is also the perfect example to illustrate the relation between syuzhet and 
fabula. The use of flashbacks emphasises the fact that syuzhet can differ very much from 
the fabula because of the non-chronological ordering of events. While Citizen Kane was 
by no means the first film to utilise flashback as a device in its narrative construction,
Bordwell believes that it helped kickstart “the growing popularity of flashback construction 
in the 1940s” (1985, p194). For its “paradoxical characteristics of a non-chronological 
time”, Deleuze calls Citizen Kane “the first great film of a cinema of time” (2009(1989), 
p96). Laura Mulvey describes it as a “puzzle” with missing pieces for which viewers have 
been trying to search, while Jorge Luis Borges Borges described it as “a labyrinth without 
a centre” (Mulvey, 1992, p9). Perhaps Borges’s comment best attests to the complexity 
of Citizen Kane, given that in his short story, “The Garden of the Forking Paths”, the sage 
Ts’ui Pen has created a novel/garden labyrinth whose diverging paths are located in time 
rather than in space.

Much like in Rear Window, the opening sequence poses questions to the spectator 
straight away, as the death of the titular character, Charles Foster Kane, is presented right 
from the start. While there are other elements in the opening sequence that arouse the 
cognitive puzzle-solving of the spectator (such as the “no trespassing” sign and the

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6 According to Maureen Turim (1989, p21ff), most historians attribute the title of ‘earliest 
use of flashback’ to D. W. Griffith. However, Turim suspects this is due to the fact that 
Griffith’s films have generally been preserved better than others. Also, Turim has noticed 
some may have mistaken what Griffith called “switchback” and “cutback” as flashback. 
As a narrative device, the flashback appears to be quite common since the 1910s (p28).
7 Bordwell (1985, p194) cites Through Different Eyes (1929) and The Trial of Vivienne 
Ware (1932) as examples of “courtroom dramas” that utilise the flashback device after 
the advent of sound. When Bordwell claims that the flashback is “commonly identified 
with Hollywood films of the 1940s”, the films he cites include: How Green Was My Valley 
(1941), Double Indemnity (1942), The Grand Central Murder (1942), Murder My Sweet 
(1944), Pursued (1947), Brute Force (1947), Crossfire (1947), Letter to Three Wives 
(1948).
beautiful transition from an apparent snow storm to zooming out to reveal the snow globe), they arguably only pose questions to the spectator upon repeated viewing (which will be one of the concerns to be discussed in Chapter 4) — after the spectator knows the answer to “what is Rosebud?”, which is the main question which seemingly drives the narrative. Bordwellian cognitivism, with its syuzhet/fabula problem-solving model, is most useful in (describing) the first viewing experience when all the information the film presents is fresh; so we shall analyse the film from that particular standpoint. In this opening sequence: a close up on a man’s mouth uttering the famous last word “Rosebud”, followed by the falling and shattering of a snow globe out of his hand, and then a nurse coming in to cover up his body with the duvet, the spectator can conclude that this man is dead. But who is he? And what does his last word mean? These are the questions that the cognitive spectator has and will try to solve them in what follows.

As with the telephone conversation scene in Rear Window that explicitly explains why Jeff has broken his leg, the very next sequence in Citizen Kane, the “News on the March” sequence, functions in a similar way and answers at least part of the first question that the spectator has during the opening: who is the man that has just died? The quasi-newsreel “News on the March” sequence is an imitation of the similar-named The March of Time, a series of short newsreel films, during the 30s to early 40s, that were shown in cinemas before the main features (of which Citizen Kane was one); by inserting the quasi-newsreel, Welles mimicked the experience of film viewing in cinemas at the time, perhaps even playing a trick the spectator, especially the unsuspecting late-comer, as Welles had done in his 1938 radio adaptation of The War of the Worlds (yet another H G Wells novel, another ‘cosmic coincidence’), which allegedly caused widespread panic in the public who actually believed aliens had started invading the Earth, a reaction that mirrors the mythical panic response in cinema’s ‘founding myth’ (Chapter 1) — yet another ‘cosmic coincidence’.

Kane’s answer to an interviewer in the quasi-newsreel (“Don’t believe everything you hear on the radio.”) may have subtly given a nod to Welles’s earlier radio stunt. For other writers, the “News on the March” sequence serves many different functions: as “a mere parody”, for “establishing the biographical premises of the film”, for “dispensing with a strictly logical narrative style”, or “as a graphic demonstration of the inadequacy of simple biographical facts to the task of elucidating a man’s life” (Damicco, 1977, p51). From a cognitivist standpoint, which avoids interpretation on anything that is

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8 As with cinema’s ‘founding myth’, some have found that “there was scant evidence of substantial or widespread panic.” (Bartholomew, 2001, p19)
not explicitly shown in the film, all of these purposes have read too much into the narration. For the cognitive spectator, the “News on the March” sequence serves only as an overview of Kane’s life, albeit at a superficial level.

While the different flashbacks in Citizen Kane already attests to the non-chronological nature of the film’s syuzhet (the ordering of events), even the “News on the March” sequence that acts as an overview of what is to come is far from being chronological, frequently jumping back and forth on the chronological linearity of Kane’s life (Fig. 3.2), requiring the spectator a certain level of cognition to get a general idea of what Kane’s public image has been (as the newsreel portrays it). The first title card reads “Obituary: Xanadu’s landlord”, directing the spectator’s attention to “Xanadu”, Kane’s extravagant “pleasure palace”. The narrator describes the extravagant way Xanadu was built and its limitless scope of contents that can only draw comparisons with palaces, “ten museums” and Noah’s Ark. The narrator compares Kane with Pharaohs and even declares that “since the pyramids, Xanadu is the costliest monument a man has built to himself.” At this point, the spectator may hypothesise that this man is extremely wealthy and egotistic. Then, as it reports that the funeral was held in Xanadu, the newsreel (hence the film itself) puts a face and a name to the spectator’s first impression of “Xanadu’s landlord”, with a large close-up of an old man’s face (Welles in his twenties with makeup) and announcing the name Charles Foster Kane (this is the first instance the spectator knows the character’s face and name). The camera zooms out to reveal various newspapers, including several in foreign languages, whose front pages are all covering Kane’s death, hence confirming for the spectator that Kane was a globally influential figure.

The newsreel introduces Kane's life's work as a newspaper tycoon, from the "humble beginnings" of his empire to its peak of expanding to other successful business ventures. Then the newsreel briefly mentions Kane's adoption as a young boy, how he was sent by his birth mother to a wealthy businessman, Walter P Thatcher (George Coulouris), in exchange for the large gold mine discovered in her boarding house. In a brief footage of a congressional investigation "57 years" after Kane's adoption, there is a brief mention of Thatcher being attacked by young Charles with a sledge during the adoption negotiation (a detail that is likely unnoticed by the first-time spectator). Thatcher is also seen to comment on Kane's “social beliefs” to be “dangerous” and “more or less… a Communist”, immediately after which another political campaigner is seen to announce that Kane “has
always been and always will be fascist\textsuperscript{9}. From here, the newsreel dives deeper into Kane's public image, his politically divided nature in the public sphere and his two marriages in his private life. The newsreel mentions Kane’s supportive stance on sending U.S. troops to the Spanish-American War in 1898 and his opposition to the First World War, his power to have “swung the election to one American president at least”, and his often swaying views on public figures and world leaders, concluding that, in the public sphere, Kane “spoke for millions of Americans” but also “was hated by many more”.

As for his private life, the newsreel mentions his first wife: a President’s niece, who left him and, soon after, died with their son; his second wife: “one-time opera singer” Susan Alexander who Kane married only two weeks after divorcing his first wife, and for whom he built a $3 million opera house and “Xanadu”, recalling the start of this newsreel. Then the newsreel shifts the focus onto Kane’s political life in which he campaigned as an independent candidate for governor. Even though “the White House [was] seemingly the next easy step in a lightning political career”, the newsreel reports that it would end in a “shameful, ignominious defeat” while showing a newspaper of headline “Candidate Kane caught in love nest with “singer”, implying to the spectator that Kane’s relationship with his second wife engendered a scandal that caused his political campaign to collapse. Furthermore, the newsreel reports that the Kane empire would then weaken significantly because of the Great Depression in 1929. It then jumps to a few years later in 1935, where the spectator first hears Kane actually talking, to a reporter, with a sharp sense of humour (including his remark about not trusting the radio), emphasising that he had “always been an American”, and his optimistic views on the imminent WWII that had not happened yet. In the short of Kane’s interview, he spoke of world leaders being “too intelligent to embark on a project which would mean the end of civilisation as we now know it”. Kane concluded, “You can take my word for it. There will be no war.” Much like the depiction of the World Wars in The Time Machine (1960), one could see the overlapping relationship between diegetic time and the reality outside. Mulvey notes that “when Citizen Kane opened in New York in May 1941, Pearl Harbour was still six months away”; Kane’s life and anti-fascist views act as metaphors that show “an awareness of its historical moment” (1992, p24). Finally, the newsreel describes Kane’s final years as a

\textsuperscript{9} It will perhaps take a lifetime to delineate the interrelation between Kane’s attitude towards social justice and others’ mislabelling, and misinterpretations, of Communism and Fascism. Here, just as Citizen Kane itself, no clear political stance is taken on this issue.
recluse in “Xanadu” when the narrator suggests that he had “outlived his power” to make history and to make the nation listen to him again as a journalist. Then as the narrator reiterates that Charles Foster Kane has just died the previous week, looping its timeline back to its start where it begins with the mention of Xanadu and the funeral, the newsreel ends rather abruptly.

The “News on the March” sequence presents an overview of Kane’s life, which will become the majority of what makes make the *fabula* of *Citizen Kane* as Mr Thompson, the reporter, looks for Kane’s acquaintances for their accounts of Kane’s life, all of which are presented as flashbacks. Fig. 3.2 shows the relationship between the “News on the March” sequence”, the *syuzhet* (to be discussed in this section) and the *fabula* (which, at this point, the spectator may or may not have determined it to equate to Kane’s life)

This graphical representation is very similar to the two-dimensional model of time described in Chapter 2. While the *syuzhet* constitutes the horizontal x-axis, individual scenes from the *syuzhet* (such as the “News of the March” sequence) could form their own vertical y-axis/axes, both of which are one-dimensional (i.e. as lines). Within the one-

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The *fabula* technically also includes events after Kane’s death (the screening of “News on the March” and Mr Thompson’s subsequent investigation). But since they are all pointing towards Kane’s life itself, which is after all the main focus of the film, for the purpose of convenience, I am equating the *fabula* to Kane’s life.
dimensional elements (e.g. the “News of the March” sequence), the film uses both mimetic and diegetic ways to convey Kane’s life. However, in order to make sense of them, the spectator’s cognitive activity happens in a two-dimensional space. The elements in the “News of the March” sequence itself are not in chronological order, and it is up to the spectator’s cognitive activity to piece them together to form a mental image of Charles Foster Kane’s life, which will be the basis for their viewing of the remainder of the film. This initial mental image the spectator has constructed is working towards completing the diagonal line which I have labelled ‘Fabula (Kane’s life)’. Note that both the vertical axis (elements within a scene) and the horizontal axis (the syuzhet) represent what the film is presenting to the spectator, whereas the diagonal line, the fabula, is the result of the cognitive workings of a thinking spectator. Also, similar to the ‘training’ function of the first couple of scenes in Rear Window, the "News of the March" sequence also prepares the spectator for the non-chronological nature of the various flashbacks to be presented to them.

Even the film seems to be signalling a shift from the one-dimensional to the two-dimensional. When the newsreel ends and the final “the end” title card is being shown, the angle of view suddenly changes, from head-on to a side-view (Img 3.1.1 and 3.1.2). From the side-view, light rays from the projector onto the screen image can now be seen, the film thus reveals that the newsreel has in fact been a test screening for a small group of editors in their screening room. Mr Rawlston (Philip van Zandt), the chief editor in the group, tells the group that the newsreel is missing something. He says, “All we saw on that screen was that Charles Foster Kane is dead… It isn’t enough to say what a man did. You’ve got to tell us who he was.” Mr Rawlston reminds the spectator that the newsreel is not enough to understand Kane’s life. Also, there is a significant question posed to the
spectator whose answer is nowhere to be found within the newsreel\textsuperscript{11}, and Mr Rawlston reminds the spectator of that fact too. He remembers Kane’s last words, “Rosebud” (which the spectator has seen the dying Kane uttered), and suggests “maybe he told us all about himself on his deathbed.” Here, Mr Rawlston seems to be doing the thinking \textit{out loud} for the spectator. “What is Rosebud?” has been the first question that the spectator is likely to have after Kane in his deathbed mutters it without any explanation or context. Now that Mr Rawlston mentions it again, it reinforces its status as the main goal of the narrative. In the goal-oriented cognitive spectator, finding out what “Rosebud” means becomes the objective to which the process of viewing the rest of \textit{Citizen Kane} is directing. Similarly, Rawlston sends Mr Thompson (William Alland) out to investigate on “Rosebud”. Hence, the spectator updates their hypothesis-testing cognition of the narrative of \textit{Citizen Kane}, as demonstrated in Fig. 3.3. The spectator now confirms the \textit{fabula} is indeed to determine Kane’s life, in particular, his last word, Rosebud, as Rawlston has asked Thompson to do. Thompson first goes to Kane’s second wife, Susan Alexander (Dorothy Comingore), at her nightclub, and is kicked out by her. Susan, as Kane’s second wife, has already been mentioned in the newsreel. But, crucially, when Thompson asks a man who works at

\begin{footnotesize}
\textsuperscript{11} Of course, during \textit{repeated} viewing the spectator would be able to identify the mention of the \textit{sledge} in the “News of the March” sequence as having significance on Kane’s last word “Rosebud” (if not being “Rosebud” itself).
\end{footnotesize}
Susan’s club whether she knows about Rosebud, he answers, “she’d never heard of Rosebud.” Even though Susan has refused to give her account of Kane’s life at this point, in the ongoing hypothesis-testing of the cognitive spectator, a mental note may have been made that Susan, and Susan’s account, may not hold the key to “Rosebud” (hence, the crossing-out in Fig. 3.3).

Next, Thompson goes to the private library of Walter P Thatcher, the rich businessman who has adopted Kane as a young child (also a character established in the newsreel). As Thompson reads Thatcher’s diary, the first flashback begins (Fig. 3.4). This flashback may be the most complex of all the flashbacks in Citizen Kane, as it involves three stages of Kane’s life, each being transitioned to the next with a swift and smooth cut that seems to undermine the passing of time. The first part (F1.1) sees Kane as a young child (Buddy Swan) playing by himself in a vast plain of snow, with his sledge, crying “The Union forever!”12 while his parents are negotiating the adoption deal with Mr Thatcher inside the

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12 It shows that the Civil War was still a live memory and thus anchors Kane’s childhood in a specific moment in US history, in the same way as the Spanish-American War, WWI and WWII were in the film.
boarding house a fair distance from him. After a slight commotion which includes young Charles pushing Mr Thatcher to the ground with his sledge, Kane leaves and is adopted\textsuperscript{13}.

The flashback quickly transitions into Mr Thatcher’s house where Thatcher gave young Charles a new sledge whilst wishing him an apathetic “Merry Christmas”, to which young Charles replies in an equally dry manner. But when the camera cuts back to Mr Thatcher continuing with “and a Happy New Year” (F1.2), he is now an older man, and is drafting a formal letter allocating some of his assets to Kane, who is now 25, to fulfil the agreement that he has signed with Mrs Kane earlier. Another quick cut sees Kane’s reply being read to Mr Thatcher that he is not interested in any of his assets but the newspaper he owns, which makes Thatcher visibly irritated. Then another quick cut sees his childhood cries of “the Union” being fulfilled by his new newspaper which seeks to challenge the establishment and look after what Kane calls “the underprivileged”. Kane and Thatcher argue. The scene cuts again (F1.3) to see Kane, now much older, is selling some of the control of the newspaper back to Thatcher because of the Great Depression. In this scene, old Kane reflects on his acquired wealth retrospectively and says “if I hadn’t been very rich, I might have been a really great man.” Then Thatcher asks him what he would have like to have been, he looks at Thatcher grudgingly and tells him “everything you hate”. This retrospective look signals a fairly large jump between this section (F1.3) and the previous sections (F1.1 and F1.2) of this flashback sequence, leaving a huge gap on Kane’s timeline that the spectator expects the rest of the film would fill. Also, at this point, what F1 does is to simply show the antagonistic relationship between Kane and his adopted father Thatcher. More importantly, there is still no mention of “Rosebud” for both Thompson and the spectator. Frustrated, Thompson even sarcastically asks the librarian whether she is “Rosebud” (of which, of course, she has no clue). Since there is no mention of Rosebud, the spectator can update their hypothesis and crosses out the corresponding places on the fabula timeline (the crosses in Fig. 3.5).

\textsuperscript{13} The scene demonstrates what Bazin describes as the use of deep focus in “The Evolution of the Language of Cinema”. Bazin talks of the technique of deep focus challenging the classic montage/shot-reverse-shot. “The influence of Citizen Kane cannot be overestimated. Thanks to the depth of field, whole scenes are covered in one take, the camera remaining motionless. Dramatic effects for which we had formerly relied on montage were created out of the movements of the actors within a fixed framework. Of course, Welles did not invent the in-depth shot any more than Griffith invented the close-up.” (Bazin, 2005 (1967), p33)
The second flashback (F2, Fig. 3.5) begins when Thompson then visits Mr Bernstein (Everett Sloane), Kane’s general manager, a character that has not been mentioned in the newsreel. Quite categorically, Bernstein does not know what or who “Rosebud” is, but he guesses that it may refer to some random encounter of a woman, and also suggests Thompson see Jedediah Leland (Joseph Cotten), Kane’s once-colleague and closest friend (who is also not in the newsreel). In F2, Jedediah Leland and Kane are together taking over The Inquirer, the newspaper Kane has acquired in F1.2. In this flashback, Kane is also seen writing and publishing his "Declaration of Principles" on his newspaper, which is his promise to his readers that only truth will be published. Leland, as if a clear sign for the spectator to take note, comments that he has a hunch that "it might turn out to be something pretty important" (and it will be in a later flashback). This flashback ends with the engagement of Kane and his first wife, Emily, to which Bernstein, now back to the present, describes as "no Rosebud" (another update to the spectator's mental construct, another crossing-out). Mr Bernstein also makes another guess that "Rosebud" may have been something Kane has lost. F2 has added significant pieces of information, or 'clues', for the spectator's reconstruction of Kane's timeline: a new character Jedediah Leland, "Declaration of Principles" as well as the idea that "Rosebud" may be something Kane has lost.
The third flashback (Fig. 3.6) comes when Thompson visits Jedediah Leland in a hospital. The first part of this flashback, F3.1, starts with yet another cinematic masterpiece of a sequence, depicting Kane’s first marriage with Emily (Ruth Warrick) that is slowly failing. This sequence compresses the passage of time and represents the rise and fall of Kane’s first marriage. It uses the technique of shot-reverse-shot that remains in the same place (at the dining table) but shows time passing (in a ‘same but different’ way): the first time shows their mutual infatuation; then Emily starts to become dissatisfied about how much time Kane spends on the newspaper though Kane’s reply is still tender; then Emily is a little unhappy about Kane attacking her uncle (“Uncle John”), the President\(^ {14} \); then the couple argue about their child; then their argument heats up when Emily says “Really, Charles! People will think…” and gets cut off by Kane who finishes “what I tell them to think!”; and finally the sixth shift in time sees the couple only glances at one another coldly, reading their own newspapers in silence, while the camera also pulls back to reveal the dining table has ‘grown’ bigger, signifying their distance.

\(^ {14} \) The U.S. President at the time depicted during the sequence was likely Theodore Roosevelt (1901-1909) or William Howard Taft (1909-1913), neither of them was known as John. However, since there was no newspaper tycoon by the name of Charles Foster Kane in actual history either (and in keeping with our ‘time travel’ theme), it is safe to assume all of the events in *Citizen Kane* happen in a sort of ‘alternate universe’, with some historical events paralleling ones in our own *actual* history.
Incidentally, this sequence is, in fact, is quite similar to the fast-forward-like sequence in *The Time Machine* (1960) (see Chapter 2) in that they both *condense* time whilst keeping the location/space constant. The only difference is that in *Citizen Kane* it is a stylistic effect that shows the passage of time that cannot be seen in reality, whereas in *The Time Machine* it is to demonstrate the experience of a reality where time travel and time machines are possible.

Meanwhile, back in the present, Jedediah offers what Kane has thought about ‘love’, how Kane has “wanted his voters to love him too”, and that Kane only ever loved himself, and his mother. Jedediah’s remarks may provide further ‘clues’, or distractions (depending on how the spectator sees them in their own cognition), as to the status of “Rosebud” being tied to his love life, the speculation provided by Bernstein earlier. Thompson asks Jedediah about Kane’s second wife. Insisting that Kane has never loved anyone, he recalls Kane calling Susan “a cross-section of the American public”. He continues with his flashback (F3.2) about Kane’s meeting Susan\(^\text{15}\).

F3.2 first depicts Kane’s first encounter of Susan Alexander, his future second wife. They share laughs and jokes, and appear to get along very well. Susan mentions that her mother has wanted her to become an opera singer from a young age. Like many other small details that may not be noticed by the first-time spectator (and I have been trying to avoid talking about them too much because they will be the focus of Chapter 4, and that the basic cognitive spectatorship I am discussing here is best suited to the first-time viewing experience), Susan summarises the split between her own admission of her lack of talent and her mother’s dream of her being a successful opera singer, and she says, “Well, you know what mothers are like.” At this point, the film presents a close-up of Kane’s deeply contemplative face, he pauses for a moment, and replies, “Yes, I know.” This is the moment when the (first-time) spectator may identify as the moment Kane *genuinely* falls in love with Susan (contrasting with Jedediah’s earlier remark that Susan is a mere “cross section” of a population in Kane’s political life), because of his contemplative look (which can also be seen as admiration) and the cinematic technique of the close-up which

\(^{15}\) Like F3.1 (first marriage), the start of F3.2 (depicting Kane’s meeting Susan for the first time) is in fact quite strange, because they are both Kane’s private scenes with his first and second wife. It is unclear how Jedediah Leland can recount these two scenes in such details (provided that the screen depiction is meant to represent Jedediah’s own recounting), despite the fact that Kane and Leland were very close friends before their eventual fallout.
usually signals the shot is of importance (especially after a long period of medium shots). Of course, the (repeating) spectator, having known what “Rosebud” is, may see this moment differently.

F3.2 continues to depict one of Kane's campaign to become a Governor, and the subsequent scene where his opponent in the election, the corrupted James W. Gettys (Ray Collins), effectively blackmails Kane to withdraw from the campaign with his knowledge of Kane's secret relationship with Susan. The film immediately dissolves into a shot of a newspaper front page, in fact, the same newspaper front page that is seen in the "News on the March" sequence when the narrator of the newsreel describes Kane's "shameful, ignominious defeat". This is one of the very few places where the flashbacks and the "News on the March" sequence merge. The election loss triggers the fallout between Kane and Jedediah, who announces to Kane that Kane only ever wants "love on [his] own terms". This flashback carries on to show Kane's marriage to Susan, Kane's building her an opera house and Susan's terrible opening night performance. Jedediah is tasked to write the review of her performance for Kane's newspaper, but he is drunk, passed out on the typewriter and unable to finish the unfavourable review he has already started. Kane finishes the review for him, carrying on with the unfavourable tone, if not making it even harsher. The flashback ends and the spectator is again greeted with an old Jedediah in the hospital, who tells Thompson that he believes everything Kane ever does is to "prove something", including his finishing Jedediah's harsh review and forcing an opera-singing career for the clearly untalented Susan. He also opines that Kane's building of Xanadu is as a result of Kane feeling disappointed in the world and wanting to build his own "monarchy". F3 has provided a lot of clues for the spectator to determine Kane's character, but none of them seems to be even remotely about "Rosebud" (for the first-time spectator), especially given the fact that both of Kane's marriages (the majority of the content of F3) have been crossed out by the spectator's earlier hypotheses from the previous flashbacks. Thompson, yet to find out what “Rosebud” is, then returns to Susan’s club.

This time Susan is willing to talk with Thompson. Before her flashback starts, she talks about how she should not have sung in front of Kane the night they met, indicating that she has not wanted the singing career in the first place. Concurring with Jedediah's opinion on Kane and his apparent selfishness, Susan says, "I didn't want to sing. It was his idea. Everything was his idea. Except my leaving him." The film then dissolves into
Susan's flashback (Fig. 3.7). F4 begins with one of Susan's many singing lessons in which the tutor is frustrated by Susan's lack of talent but is forced to tolerate when Kane comes in to remind him he is in no position to give his own opinion but to do what he is paid to do. Then the spectator sees the same opening night performance as they have seen in F3.2, but this time it is extended and offers different viewpoints from the one depicted in the earlier instance. Then Susan reads the review on her performance from Kane's newspaper and is angry about the fact that Kane's friend, Jedediah, is being critical. At the same time, Kane also receives a letter sent from Jedediah, containing the "Declaration of Principles" that Kane drafted at the start of his career in the newspapers (F2). Susan does not know who has written the review (the review is written by Kane himself in F3.2), nor the significance of the "Declaration of Principles". Despite being in Susan's flashback, these points are purely for the spectator's benefit. Susan does not want to sing anymore but Kane claims he does not "propose to have [himself] made ridiculous". As Kane walks over to Susan and announces, "You will continue with your singing," his shadow imposes upon the entire face of Susan, who has now kneeled down in desperation. The spectator can see Kane's over-dominating nature in their marriage. Then, when Susan finally gets deliberately sick by overdose to make Kane see how much she does not want to sing, to bear the situation in which "a whole audience just doesn't want you". Kane momentarily continues with his apparent selfish and dominating nature and says, "That's when you've
got to fight them," but he quickly resigns and 'allows' Susan to give up singing. The flashback then jumps to the couple's later life in Xanadu, the enormous and secluded "pleasure palace". Kane continues to "never give [Susan] anything [she] care about", as Susan puts it whilst they are on their way to a picnic that Kane organises. In the picnic, Susan continues to shout about how Kane "just tried to buy [her] into giving [him] something", which ends in Kane slapping Susan. The flashback ends with Susan packing and about to leave Kane for good. Kane pleads for her not to leave, and this is when Susan has an epiphany about Kane’s true nature: "I see. It’s you that this is being done to. It’s not me at all. Not what it means to me.” Susan turns around and walks away. Kane is visibly distraught.

All of the flashbacks, leading up to Susan's epiphany, have shaped the character of Charles Foster Kane as a figure who appears selfish and dominating, which is a result of having been at the receiving end of the same treatment. Back in the present moment, Thompson, perhaps also mirroring the spectator’s opinion on Kane, says he feels “kinda sorry” for Kane. The life and character of Kane may have been well constructed from all of these flashbacks. But still the question remains: what is Rosebud? Back in the present moment, Susan suggests Thompson visit Raymond (Paul Stewart), the butler in Xanadu, who apparently “knows where all the bodies are buried”, as Susan describes him.

Thompson and his colleague visit Xanadu to catalogue all of Kane’s collection. Thompson approaches Raymond, the butler, for his final investigation. Raymond claims to know about Rosebud but wants money in exchange for his information. He is being deliberately vague at first, but then he starts to recount his story, and Raymond’s flashback (Fig. 3.8) begins. F5 continues where Susan’s (F4) has left off. After Susan turns around and leaves him for good, Kane goes back into the room and starts to throw and destroy everything in it. He destroys everything until he gets to a snow globe, and he stops, grabs it and says "Rosebud". Kane is tearful after he says it. Raymond, and all the other servants, are at the other side of the door when Kane says “Rosebud”. Kane walks out aimlessly, and that concludes the short flashback. Finally, the spectator has located “Rosebud” here in F5. However, it still bears very little relationship with the rest of the timeline to make any logical conclusion.

The keen-eyed spectator with a sharp memory may have remembered seeing a snow globe at the start of the film when Kane dies. Back in the present moment, Raymond
reminds the not-so-observant spectator that he has heard Kane saying “Rosebud” “that other time” when he dies and drops the “glass ball”, recalling the first scene. However, even with this link, the spectator simply cannot ascribe any logical conclusion between “Rosebud” as a mere utterance, a seemingly random snow globe, and its supposed significance (signalled by recalling the first scene). Raymond offers his own interpretation and claims that Kane, before his death, has said “all kinds of things that didn’t mean anything”. In the film’s penultimate scene, Thompson is forced to accept this interpretation when he has one of Susan’s jigsaw puzzles in his hands, likening his investigating to it, and suggests that Rosebud is perhaps “something [Kane] couldn’t get or something he lost” that “wouldn’t have explained anything” and “is just a piece in a jigsaw puzzle; a missing piece”. At this point, even after successfully locating “Rosebud” in the search within Kane’s timeline, it has not explained anything; the spectator may have to give up their continuing hypothesis-testing cognition (Fig. 3.3-3.8), and simply accepts “Rosebud” (or the film itself) as incomprehensible.

In one of the most famous ‘reveals’ in cinema’s history, the film finally reveals what Rosebud is referring to in its final scene (Fig. 3.9). As the workers at Xanadu are set to burn everything in Kane’s collection that is not worth much money, one of the workers
throws an unassuming sledge into the furnace. The film cuts to a close-up of the sledge to reveal the word “Rosebud” on the sledge that is burning. The first-time spectator may be able to recall a sledge (or sledges) in scenes (F1.1) depicting Kane’s childhood (Img. 3.3 - 3.6). But it is most likely that the spectator only notices the sledge upon repeated viewings. And this will be our main focus of the next chapter. The final reveal points the spectator (who may have already given up on hypothesising Rosebud is, as Thompson has) back to Kane’s childhood, to the earliest flashback, effectively making all the other flashbacks (F1.2 - F5) redundant in terms of purely looking for the answer of “what is Rosebud?”

However, this is clearly not the case in the cinematic enjoyment of what may arguably one of the best films in cinema’s history. Many of the sequences in the film (the seamless transition in F1, the dining table sequence with Emily in F3, the opera scene in F4 which is then repeated in F5, etc, to name a few) are masterfully crafted (even though

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16 In one episode in the animated comedy series Family Guy (“Screwed the Pooch”, episode 13, Season 3, first aired 29, Nov 2001), it is mentioned that Peter tapes over rental movies from the store to add his own footage. One of the tapes he tinkers with is Citizen Kane: right after the very first scene where the snow globe is dropped, the black and white film cuts abruptly into a colour footage of Peter sitting in his living room, who dryly announces that Rosebud is “his sled, the sled from when he was a kid”. He then addresses the renter that he has saved them time by not having to watch the film at all. It works as a tongue-in-cheek joke; it also reveals how the ‘average’ spectator opines on the narration of Citizen Kane.
they do not contribute to answering “what is Rosebud?”). Also, the process of getting to realise what Rosebud is perhaps more important than simply knowing what “Rosebud” means on a superficial level. Even Kane himself only realises the significance of Rosebud when Susan leaves him before his death, the spectator needs to see Kane’s whole life presented in the whole of Citizen Kane to realise the true significance of Rosebud. In the end, the answer to “what is Rosebud?” is no longer important to the narrative of Citizen Kane. The constructing of syuzhet elements into the fabula, i.e. the narrative of the entire film, becomes Rosebud itself.

*Citizen Kane* is a good example to show the relationship between syuzhet and fabula, and how, sometimes, it can be as complex as to make even Borges himself comment on its ‘labyrinth’ nature. However, just as I cannot always contain myself from including elements of ‘repeated viewing’ in my explication of how the syuzhet / fabula relationship works mostly in a first-time viewing experience, ‘repeated viewing’ is also a prominent feature in Citizen Kane’s narration, as well as many other films that appeals to the desire of repeated viewings by cinephiles. Chapter 2 notes that the aesthetic of repeats as one
of the common characteristics of time-travel films. Here, ‘repeat’ seems to be also a method for narration (just as some elements are repeated between the flashbacks and the “News on the March” sequence), and a method for narrative comprehension (just as Citizen Kane always seems to implicitly have a second layer of for the repeating viewer to enjoy). Finally, it is also worth noting that the film Citizen Kane will likely not lose any of its artistic merits, or of spectatorial enjoyment, had the final ‘reveal’ scene been cut and Rosebud is never revealed. Even with the ‘reveal’ in place, just as Thompson suggests that Rosebud “wouldn’t have explained anything”, it does not contribute much, if at all, to the construction of the fabula. Rosebud, therefore, seems to function outside of the whole syuzhet / fabula relationship. This is a theme that we shall continue to see in what is to come.
Chapter 4
The aesthetic of repeats: Freud’s Nachträglichkeit

“It’s just like what’s happening with us. Like the past. The movie never changes; it can’t change. But every time you see it, it seems different, because you’re different. You see different things.”

James Cole
12 Monkeys (Terry Gilliam, 1995)

Chapter 3 dealt with the first common characteristic of time travel films I have identified in Chapter 2: complicated narrative structure. By going back to the very basics of film narration and cognitive narrative comprehension, using canonical examples (Rear Window and Citizen Kane), which do not feature any depiction of time travel at all, I have demonstrated that this ‘characteristic of time travel films’ is not just limited to time travel films, but can apply to cinema as a whole. Borrowing from David Bordwell’s work on cognitivism and narration, I have moulded the process of narrative comprehension by the cognitive spectator (working from syuzhet to fabula) to resemble the two-dimensional model of time illustrated in Chapter 2. It is worth noting that the cognitive spectator can only arrive at the completed mental construct of Citizen Kane (Fig 3.9 / 4.1) after they have finished watching the film from beginning to end, building their mental picture of the relationship between syuzhet and fabula (Fig. 3.2 - 3.9). It is only after the spectator has already seen Citizen Kane at least once after they have discovered the ‘meaning’ of Rosebud¹, do they have the completed (metaphorical) diagram in their mind as a reference for when they watch the film again (Fig. 4.1). For instance, when the repeating spectator sees the first scene of Citizen Kane (of Kane dying, muttering the word “Rosebud” and dropping the snow globe in his hand), they immediately recognise the significance of Rosebud, perhaps even remember the scene near the end of the film

¹ A conventional reading of Citizen Kane ascribes a ‘meaning’ to Rosebud in Kane’s lost childhood and the abandonment by his mother. I reserve the possibility that Rosebud may not mean anything.
where Kane stops throwing and destroying things in the room when he sees the snow globe (F5). When the repeating spectator hears the mention of a sledge in the “News on the March” sequence, and when they see the sledge in young Charles’s hands, they realise the hidden significance which they would not have understood upon their first viewing. This chapter deals with that mechanism in narration and narrative comprehension that involves such repetition.

The aesthetic of repetition is the second common characteristic of time travel films that I have identified in Chapter 2. In time travel films (most evident in the Back to the Future series), an aesthetic of repetition is employed when time-travelling characters return to a time they have already lived through before. For example, in BTTF2, Marty has to live through 12 Nov 1955 which he already lived through once in BTTF. However, this aesthetic of repetition constitutes the nature of being the ‘same but different’: the first time Marty lived through that particular day was to (re)unite his parents, whereas in the second time he had to steal the sports almanac from Biff’s hands in order to restore the timeline he created in BTTF. The two events both happened at the Enchantment Under the Sea dance at Hill Valley High School, but the purposes were different. Also, the ‘Marties’ were different: one ‘Marty’ did not experience the alternate 1985 while the
other did. This chapter will explore a similar aesthetic of repetition that exhibits the nature of being ‘same but different’.

As alluded to in the Introduction, the ‘same but different’ aesthetic is encapsulated by the Freudian concept of nachträglichkeit. This chapter will explain in detail what nachträglichkeit is, and how it can be applied to our overall theme of time travel in cinematic time. In this chapter I have chosen to begin with my case study before explaining the theory, because while the concept of nachträglichkeit can be dense to take in (even with Freud’s own case studies), the case study I have chosen makes the concept, as well as its connection with the ‘aesthetic of repeats’, as apparent as they can be. However, as with the choice of Citizen Kane in the previous chapter, my case study in this chapter is even more unorthodox. I have chosen, for this Film Studies thesis, a TV advertisement — “Misunderstood” (Lance Acord, 2013)\(^2\) — for consumer electronics giant Apple for their 2013 Christmas advertising campaign. There are certainly many films which I could have used to illustrate the concept of nachträglichkeit in action — in fact my aim is to show that the repeating spectatorship of all films, and moving pictures, encompass a kind of nachträglichkeit — some of these films will become my examples in the latter stages of this chapter, such as The Usual Suspects (Bryan Singer, 1995) and The Sixth Sense (M Night Shyamalan, 1999). However, the TV advert I have chosen is not only delicately made as a microcosm of narrative cinema in its technique and the incorporation of an elaborate narrative, it also makes the concept of nachträglichkeit more condensed and compact because it is only 90 seconds long (albeit unusually long for an advert). Furthermore, because the advert is mostly selling the Apple iPhone, it also ties in another topic of the evolution of moving images that I would like to discuss in this chapter. The modern smartphone has democratised image making in that anyone who carries a smartphone effectively has a high-quality image-making device with them at all times. This shift in our image culture led by the advent of the modern smartphone certainly has its benefits, however, as I will argue later in this chapter, this can also lead to what I consider as a ‘self-inflicted neurosis’ (also borrowing from Freudian psychology)

\(^2\) “Misunderstood” was created by advertising agency TBWA\-Media Arts Lab, USA. The reason I reference this advert in the same format as one does with a feature film (i.e. crediting the director(s) and referencing the year of release) is to reinforce the idea that one can consider it as a miniature film. Lance Acord worked as director and director of photography for this advert. He is an established cinematographer and has worked, as director of photography, on films such as Being John Malkovich (Spike Jonze, 1999), Adaptation (Spike Jonze, 2002), Lost in Translation (Sofia Coppola, 2003) and Marie Antoinette (Sofia Coppola, 2006).
due to a distorted view on the nature of the archive and of memory. This is also perfectly illustrated by my chosen case study "Misunderstood". By the end of this chapter, the reader should be clear about the dynamic between the Freudian concept of nachträglichkeit, narration and narrative comprehension, our engagement with images in today’s image culture influenced by advancing technology, and how all of the above tie in the overall discussion about time travel.

A case for (the return of) psychoanalysis

In Chapter 3 I explained how Bordwell puts forward a ‘case for cognitivism’ as a reaction to the Grand Theory. He argues that approaches based on the Grand Theory rely too heavily on rigid doctrines, hence they over-generalise nuanced issues in Film Studies. He also argues that such over-generalisation leads to the false impression that the Grand Theory can work towards an all-encompassing solution to all problems, not just in film, but in all manner of socio-cultural issues. Psychoanalysis is one of the doctrines that cognitivists have identified as the Grand Theory. For cognitivists, to theorise film under psychoanalysis is to accept the psychoanalytic doctrine as a given before applying it to any spectatorial activity. Cognitivists argue that, In a purely psychoanalytic approach, spectatorial activity “needs to be read in relation to unconscious processes” (Prince, 1996, p72), in which “the biological individual becomes a subject by virtue of having its inherent needs organised, gratified, and repressed by the process of representation” (Bordwell, 1996, p7). Hence, the psychoanalytic approach is said to obscure, or even misinterpret, the conscious activities by an actual spectator. Stephen Prince even comments that “it is an embarrassment that [psychoanalytic] film scholars have written so much about spectatorship at a level of almost total theoretical abstraction while other disciplines have done systematic work on real viewers” (p76), suggesting that psychoanalytic film theory does not deal with “real viewers” at all.

However, as Steve Nolan (2009) points out, the film theory that cognitivists identify as the Grand Theory was a concoction that was “developed during the 1970s in the British film journal Screen; a peculiarly challenging theoretical mix of ideology, semiotics and psychoanalysis that has been concerned to understand the ways in which cinema operates to construct the identity of spectators.” (p2) Nolan further explains that “Screen adopted Lacanian psychoanalysis, and the journal’s interpretation of Lacan has been foundational” for writers who subsequently wanted to utilise Lacan’s ideas “for purposes
other than psychoanalysis”, but in “cultural criticism”. However, it was then Althusser’s influence that further shaped “Screen’s theoretical development to the extent that it skewed the journal’s appropriation of Lacan and obscured some of the potentials of psychoanalysis to contribute to film theory. This (mis)appropriation, which resulted from the politicisation of Lacan’s dream theory into a general theory of signification, is embedded in what is effectively Screen’s basic interpretation of Lacan as presented by Colin MacCabe (1975).” (p79) What Nolan suggests is that it is, in fact, the resulting mixture of Althusserian Marxism with Lacanian psychoanalysis that constitutes the problem that cognitivists find issues with, and that Lacanian psychoanalysis should be freed from such an affiliation to realise its full potential in Film Studies. Meanwhile, Todd McGowan and Sheila Kunkle (2004) have observed that since the mid-1990s, “Lacanian psychoanalysis has disappeared from Film Studies” (p.xii). However, they also clarify that “film theory’s understanding of Lacan was largely mistaken” (p.xiii), especially on the “misplaced emphasis” on Christian Metz’s and Jean-Louis Baudry’s borrowing of Lacan’s mirror stage 3 to theorise subjectivity and identification in the cinematic experience.

Slavoj Žižek is perhaps the most prominent figure in the attempt to revive the interest in psychoanalytic theories, in particular his return to suture4 seeks to “give Lacan himself a chance” (Žižek, 2001, p2), because, for Žižek, most writers who identify themselves as ‘Lacanians’ are in fact “missing Lacanians”, concurring with the aforementioned commentaries that Lacan has been misinterpreted. However, in dealing with Lacan himself who claimed to “return to Freud”, Žižek states that “Lacan did not understand this return as a return to what Freud said, but to the core of the Freudian revolution of which Freud himself was not fully aware” (2006, p2) [my emphasis]. When one reads

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4 According to Steve Nolan (2009), the “neo-Lacanian” concept of suture was introduced into film theory by Jean-Pierre Oudart ([1969]1977/78), who attempts to expose the relationship between technology and ideology, adhering to Althusser’s notion of ‘Ideological State Apparatuses’ (1971), in particular, “the cinematic impression of reality operates as the instrument of the dominant bourgeois, capitalist ideology” (Nolan, p82). In psychoanalytic film theory, suture ties into spectatorial identification, the linking of the ‘gap’ between subjective and objective shots, or what Bordwell calls “subject position” in the Grand Theory (Chapter 3). For Žižek (2001, p56), because of Post Theory’s emphasis on ‘piecemeal’ and ‘middle-level’ research, Post Theory “insists on multiple relatively independent levels” whereas suture represents “the structurally necessary short-circuit between different levels (style, narrative, the economic conditions of the studio system of productions, etc)”.

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Freud's actual case studies, one gets the sense that Freud was more of a psychotherapist, who works towards a cure (or elimination of the symptoms), than a psychoanalyst who is more interested in the mechanics of the 'illness', which Lacan was. Žižek writes: “for Lacan, the goal of psychoanalytic treatment is not the patient’s well-being, successful social life or personal fulfilment, but to bring the patient to confront the elementary coordinates and deadlocks of his or her desire.” (p4) Žižek carries on to distinguish Lacan’s ‘version’ of Freud from Freud himself:

With regard to Freud, the first thing that strikes the eye is that the key used by Lacan in his ‘return to Freud’ comes from outside the field of psychoanalysis: in order to unlock the secret treasures of Freud, Lacan enlisted a motley tribe of theories, from the linguistics of Ferdinand de Saussure, through Claude Lévi-Strauss’s structural anthropology, up to mathematical set theory and the philosophies of Plato, Kant, Hegel, and Heidegger. It follows that most of Lacan’s key concepts do not have a counterpart in Freud’s own theory: Freud never mentions the triad of Imaginary, Symbolic and Real, he never talks about ‘the big Other’ as the symbolic order, he speaks of ‘ego’, not of ‘subject’. Lacan uses these terms imported from other disciplines as tools to make the distinctions that are implicitly already present in Freud, even if he was not aware of them. For example, if psychoanalysis is a ‘talking cure’, if it treats pathological disturbances only with words, it has to rely on a certain notion of speech. Lacan’s thesis is that Freud was not aware of the notion of speech implied by his own theory and practice, and that we can only develop this notion if we refer to Saussurean linguistics, speech acts theory and the Hegelian dialectics of recognition. (ibid.) [my emphasis]

It is apparent that psychoanalytic film theory from the Grand Theory has been developed from the misappropriation of Lacanian psychoanalysis in Screen and the “missing Lacanians”. Meanwhile, Lacan himself is adapting the original in Freud taking a certain amount of liberty. It is my contention that the ideas Lacan has interpreted out of Freud are not “implicitly already present in Freud”, but should be read as Lacan’s own. Interestingly, Bordwell, who is arguably the most prominent figure among the Post-Theory cognitivists, is himself rather appreciative of Freud’s work at times. Unlike most writers who adopts the Post-Theory approach (as an opposite to the Grand Theory) and
denounce psychoanalytic film theories, Bordwell has once claimed that he “[does] not deny the usefulness of psychoanalytic approaches to the spectator” (1985, p30). Also, in a footnote, he is quick to point out that Freud himself specifically did not see his originally conceived enterprise of psychoanalysis as an approach that seeks to provide an all-encompassing solution to all problems using doctrines (i.e. the Grand Theory that Bordwell and Carroll describe), but an empirical science (p34, n3). Freud describes his psychoanalysis as an “intellectual working-over of carefully scrutinised observations — in other words, what we call research — and alongside of it no knowledge derived from revelation, intuition or divination.” (quoted in Hewitt, 2014, p34) Certainly not the rigid doctrine-driven recycling of theories of the Grand Theory of which psychoanalytic film theory is one.

The chapter will “return to Freud” not in the Lacanian sense but the literal sense. As we shall see, Freud’s concept of nachträglichkeit laid the foundation for the development of psychoanalysis, before it was ‘adapted’ into different versions such as Lacan’s and Screen’s. By returning to the ‘original’ version, the concept of nachträglichkeit can be applied in cognitive spectatorship in relation to cinematic temporality (or the inherent time-travel quality in cinema). Strangely, to illustrate the use of the Freudian concept in film, I am using an example not of film per se, but of a television advertisement. However, this is the best example that I know of which illustrates the mechanics of Freudian nachträglichkeit in film narration, better than all of the film examples that I will refer to later in this chapter.

**TV Advert: “Misunderstood”**

In 2013, consumer electronics company Apple released a TV advertisement for their Christmas promotional campaign. Titled “Misunderstood”, the advertisement was widely met with praise and critical acclaim\(^5\). The full version is 90 seconds long, which is quite unusually long for a TV commercial. But it was intricately shot and cleverly edited with cuts that are quick without being abrupt; it was essentially a condensed and miniaturised narrative film. Also, “Misunderstood” very deliberately uses the technique of repeats. The advert is structurally split into two halves, with the second half showing essentially the same events shown in the first half but from a different perspective. This clearly exhibits

\(^5\)“Misunderstood” won the 2014 Emmy Award for Outstanding Commercial.  
the aesthetic of ‘same but different’ that characterises time-travel films, or the time-travel quality in films in general. I will first analyse the advert by employing the cognitive approach used in Chapter 3. Then when the analysis gets to the advert’s use of the ‘same but different’ aesthetic, I shall demonstrate how the psychoanalytic concept of nachträglichkeit can complement a cognitive approach.

Set to a plain piano solo rendition of “Have Yourself a Merry Little Christmas” and a deep snowy backdrop, an estate car drives out of a snow-covered suburban area into a main road, suggesting a long family trip. The first half of the advert establishes its main character, a teenage boy who is seemingly reluctant to come along to the family trip. When the spectator sees the teenage boy for the first time, they see a shot of him inside the back of the car looking out of the window with a bleak expression and another shot of him purposelessly checking on his smartphone (Img. 4.1, 4.2). These two shots seem to suggest that the boy has been unenthusiastic, bored, and hence has been mindlessly checking on his phone and looking out of the car window just to pass the time. Similar to a classic establishing shot that sets the environment of a scene, these two shots establish the spectator’s initial impression of the boy as a stereotypical asocial teenager who is indifferent to and detached from his family. In fact, throughout the whole of the first half of this advert, the spectator will mostly see shots that depict the teenage boy in a similar way. When his family arrives at grandpa’s house, while everyone else is showing enthusiasm in welcoming and greeting each other, the boy is always the person the

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6 The song came to fame for its use in *Meet Me in St. Louis* (Vincente Minnelli, 1944), which brings family values to the fore, just as “Misunderstood” attempts to.
furthest away from the shot's viewpoint (Img. 4.3), sometimes to the point that makes him almost invisible from the shot (Img. 4.4). Such an arrangement to the shot reinforces the spectator's impression of the boy being detached from the rest of the family. Crucially, his gaze never leaves his smartphone the entire time. Even when his grandfather comes to embrace him (Img. 4.5), he does not appear to be at all enthusiastic about reciprocating. At this point, he has a present in one hand and his phone in the other. Unable, and seemingly unwilling, to reciprocate, while not even looking at his grandfather for a single moment, he receives the hug, lets out an embarrassed “aw”, wishes him Merry Christmas seemingly halfheartedly, and then immediately looks back at his phone in his hand as soon as the embrace is finished (Img. 4.6).

By now, the impression of a *stereotypical* indifferent teenager has been cemented in the cognitive spectator. The next few shots will employ similar arrangements in the *mise-en-scène* that shows a contrast between the foreground and the background, with the boy, in focus, on one and the rest of the family, generally out of focus, on the other. Like his appearance in the previous shots, in each of the next few shots, the boy always seems to be focusing his attention solely on his mobile phone, completely separated from the Christmas activities the family is engaging in right next to him: the family is baking cookies in the background while he concentrates on his phone on the foreground (Img. 4.7); two of the family members are sledging on the background while he sits on a bench busily thumbing on his phone (Img. 4.8); four other kids are building a snowman right next to him while he does not even look up away from his phone for a single moment (Img. 4.9); and, the others are playing a game of ice hockey in the foreground while he sits quite a bit further back on a fence, again, engrossed in his phone (Img. 4.10). In the next shot, the
boy’s grandfather, who the spectator has seen earlier embracing the boy without getting a warm reciprocation (4.5, 4.6), throws a woolly glove at the boy, who is sitting in a far corner completely immersed in his phone and does not react in time until the glove hits him (4.11). The spectator can infer that the grandfather’s action is as a result of a slight discontent for the boy’s lack of participation, which in turn further strengthens the stereotypical image of an asocial teenager.

However, there are a few shots within the first half of this advert that introduce doubts to such a simplistic stereotype. First, after the sledging shot (4.8), the spectator sees the boy look up, away from his phone and towards his family, seemingly ponder over something (4.12). When the younger kids are building the snowman (4.9), even though the boy appears to have never shifted any bit of his attention away from his phone, he nonetheless immediately produces a carrot from his pocket for the snowman’s nose as soon as the girl turns to him for help, which the spectator can infer that the boy has thoughtfully prepared for his younger cousins. Later, the spectator sees him holding the hand of a much younger family member (4.13). Also, he is seen babysitting the younger kids in their afternoon nap, even though he does not seem entirely attentive as he focuses his attention on his phone (4.14). For the cognitive spectator’s hypothesis-testing process, these ambiguous shots introduce a new element of empathy to the teenage boy’s otherwise unsympathetic character. Furthermore, so far there has not been a single shot showing the spectator the screen of his phone, indicating what it is that makes the boy so preoccupied with it. In the cognitive problem-solving model for narrative comprehension, these ambiguities constitute a missing piece of the jigsaw puzzle which is the narrative of the advert itself. The piano solo of “Have Yourself a Merry Little Christmas” comes to an abrupt halt, as the whole family is gathered together in front of a big television. The boy walks up to the television appearing to set it up. It is at this halfway point of the advert that it begins to ‘reveal’ the missing piece of the jigsaw.
It is the second half of “Misunderstood” that exhibits the ‘same but different’ aesthetic that gives the advert an inherent time-travel quality, because it is, in essence, a replay of the first half, albeit from a fresh new perspective. It turns out the boy sets up the television so that he can wirelessly beam a video off his phone onto it. The music resumes, or, rather, restarts from the beginning: it is still the same song, in the same key, at the same tempo, and of a similar plain style as before; but, instead of being a piano solo, the song is now sung by US singer-songwriter Cat Power. Here, the use of music is also constituting the ‘same but different’ aesthetic. As this ‘same but different’ rendition of “Have Yourself a Merry Little Christmas” starts playing in the background, the spectator is now looking at the television from the point of view of the family members. The video starts playing on the television, and it soon becomes clear that the video is one that shows events depicted in the first half of the advert. When the video gets to a shot in which the grandfather walks towards the camera with his arms open (4.15), the advert jump cuts to show the video filling the entire screen (4.16), a reverse of what Citizen Kane does at the end of the “News on the March” sequence jumping from the “The End” card filling the entire screen to revealing the screening room that the image is being projected (Img. 3.1.1, 3.1.2, Chapter 3). Therefore the spectator is now watching what the family members are watching. Also, it becomes apparent that the shot depicted on the video is the exact same shot in the first half in which the teenage boy was seemingly embarrassed by his grandfather’s enthusiasm and turned his focus back on his phone as soon as the embrace was over (4.5, 4.6). The video is evidently one that the boy has been shooting during the first half of the advert, with his video camera-equipped Apple iPhone which he was constantly holding. Shot 4.5 that we saw earlier and shot 4.16 that is now showing on the video are in fact both referring to the same moment in time in the narrative. However, while 4.5 was shot from an angle of the third-person, the camera angle of 4.16 is from the boy. Even though not every shot in the boy’s video (second half of the advert) finds its equivalent from the first half of the advert, the spectator can infer that all the scenes shown in the boy’s video happened during the diegetic time of the first half. Also, apart from the shot of the grandfather’s embrace (4.5/4.16), the spectator can see a few more shots in the boy’s video that have equivalents in the first half: a close shot of the family baking cookies (4.17)
which corresponds to the out-of-focus background of a shot the spectator has seen earlier (4.7); a shot of the younger kids napping on the floor (4.18) corresponds to the earlier shot where the boy babysits the kids (4.14). But perhaps the most striking pairing comes in a shot in the video in which a woolly glove flies towards the camera in slow motion (4.19). The slow motion effect is clearly to showcase the then-new slow-motion feature found on the latest generation of Apple’s smartphone, which is one of the products this advert is trying to sell in the first place. But, more importantly in our current discussion, the slow motion effect provides a strong visual shock for the spectator that makes this particular shot in the video stand out. It also helps to recall the shot depicting the exact same moment from the first half where the spectator saw the grandfather throwing the glove at the boy that seemed to suggest the grandfather’s discontent with the boy’s lack of participation.

All of the pairings constitute the ‘same but different’ aesthetic because the shots in the boy’s video have their equivalents in the first half of the advert from different viewpoints. By showing these ‘same but different’ shots in the boy’s video, the advert shows extra information that has not been revealed during the first half — the missing piece of the jigsaw puzzle. By watching the same events, but from a different perspective, the spectator realises that their initial hypothesis of the boy’s character is wrong, just as the family in the diegesis realise they have misunderstood the boy. He has not been a “stereotypical teenager” at all; he was busy filming his family holiday and editing his video so that he could show it later on the television for everyone in the family to enjoy. In fact, when the boy’s video ends, the family is moved by the video, and they break into an
applause. Some members even shed their tears while another member gives him a hug, to which he reciprocates fully this time.

In this advert, both the spectator and the boy’s family have experienced what I would call a process of “delayed realisation”. It was not understood at the time when the boy was shooting his video that he, rather than being unsympathetic and distanced, was, in fact, doing something for the whole family. He was *misunderstood* at the time, hence the very apt title of the advert. The spectator’s (and the family’s) realisation of the boy’s true character and intention comes at a later time, when he shows his video on the television. Fortunately, despite being delayed, this realisation is still earlier than the tragic “too late”, which Linda Williams (1991) characterises as the “temporality of fantasy” (p9) that is typical of the melodrama genre, or “weepies” as she calls it (*Stella Dallas* (King Vidor, 1937) and *Mildred Pierce* (Michael Curtiz, 1945) are among the examples she uses). In following the spirit of quirky adaptation across different genres in the previous chapters, "Misunderstood" could have easily been ‘adapted’ into a tragic version where the boy’s video is never played during Christmas, and everybody in the family stays misunderstanding him. Later in this chapter, I shall explain how this ‘tragic’ version may still apply in the ‘original’ version. For now, it should be noted that the spectator’s understanding of the teenage boy is multi-layered. The first and initial layer is the misunderstanding that happens in the first half of the advert: the shots depicting the boy constantly focusing on his phone, while not revealing what it is he is doing on his phone, (mis)lead the spectator to assume that the boy for being the *stereotypical* unsympathetic teenager who distances himself from the rest of his family and only cares about texting or playing games on his phone. Some of the shots in the first half of the advert introduces doubt to this initial hypothesis, but they do not provide enough information for the spectator to change their hypothesis. Then, the video that the boy has created on his phone makes up the second half of the advert and forms the second layer of the spectator’s understanding. As we saw in Chapter 3, Bordwell states that “every syuzhet uses retardation to postpone complete construction of the fabula.” (1985, p52) The “retardation” used in “Misunderstood” is withholding a piece of information that *could have been* revealed in the first instance that the boy is seen using his phone (by inserting a ‘reverse shot’ that shows the screen of the phone). This is what I mean by a ‘delayed realisation’ on the part of the spectator. The advert has a “happy ending” and ends on this second layer. Later in this chapter, I shall propose that there is a third layer of understanding. This is by no means an ‘interpretation’ of the Grand Theory approach but a cognitive
delineation of what is depicted on the screen, but unnoticed. But, for now, let us focus on the second layer: the delayed realisation.

Nachträglichkeit: Multi-layered memory

The process of “delayed realisation”, which both the spectator and the boy’s family have experienced, invokes the Freudian concept of nachträglichkeit. It is a concept that describes the phenomenon in which a present situation causes a reaction that is, in fact, a response to an earlier event, "an active process that bridges the gap between past affective vicissitudes and the cognitive present by way of meaning". Gerhard Dahl believes it is "one of Sigmund Freud’s most important conceptions" whose “influence on psychoanalytic thought can hardly be overestimated.” (2010, p727). However, nachträglichkeit is a part of psychoanalytic theory that has generally been less referenced in cinema studies than the concepts on subjectivity and sexuality. There are certainly similarities between the Freudian concept of nachträglichkeit and the ‘delayed realisation’ in “Misunderstood”. Therefore, nachträglichkeit is an important concept to help illustrate the aesthetic of repetition that is common in time-travel films, in the advert “Misunderstood” (which represents a microcosm of narrative cinema), as well as in cinema as a whole.

Nachträglichkeit is a German abstract noun which is generally translated as “deferred action” in most work on Freud, as well as Freud’s own work in The Standard Edition of the Complete Psychological Works of Sigmund Freud. However, the translation itself is a point of contention. In fact, one could say that the translation of the term nachträglichkeit has itself undergone nachträglichkeit, or a process of ‘delayed realisation’ as I have been putting it so far. First translated systematically as “deferred action” by James Strachey who translated The Standard Edition from the 50s through to the 70s, the accuracy of the translation has then been heavily questioned since. Helmut Thomä and Neil Cheshire (1991) accused Strachey of missing the critical denotation and connotation of the German word. According to Thomä and Cheshire’s article, there have been 46 references to the translated term, deferred, throughout Freud’s entire Œuvre. The earliest is to be found in a sentence in Freud’s The Project for a Scientific Psychology7 (the case of Emma, SE1,

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7 Another ‘cosmic coincidence’ that cannot be missed: Freud’s Project was first published in 1895, the same ‘magic’ year that saw the birth of cinema and H G Well’s The Time Machine.
p356, to be discussed below) and the first authorised translators Eric Mosbacher and James Strachey initially translated it as “a memory... which becomes a trauma only after the event”. Then, it was Strachey himself who later changed this clumsy translation to “deferred action” in the hope of standardising the language in the English translation across the whole of Freud’s work. Some consider that Strachey’s translation might have contributed to the “crisis of psychoanalysis in the English-speaking world, where doubts have been encouraged about the metapsychological status of some central concepts and about the balance between positivistic and hermeneutic aspects of the theory,” while some even go so far as to say Strachey was “a traitor to Freud” (Thomä and Cheshire, 1991, p408) \(^8\). However, at the same time, because translation can sometimes be an impossible task, some defend and call Freud’s psychology ‘the psychology of the poets’ for poems can never be fully translated (p407), although the analogy between Freud’s research and poetry risks undermining Freud’s scientific dimension.

Besides “deferred action”, Jean Laplanche (1991) has translated nachträglichkeit as ‘après-coup’ (which is then translated into English as ‘afterwardness’), or “after effect” (from A. Bourgogne’s effet d’après coup) (see Thomä and Cheshire, p422); Arnold H Modell (1996(1990)) has translated it (or reused Freud’s own words from elsewhere) as “retranscription” of memory; and, Thomä and Cheshire have suggested “deferred activity” or “deferred activation” as possible translations, which are in fact quite close to Strachey’s “deferred action”. Despite criticism towards Strachey’s translation, “deferred” indicates a sense of delay that nachträglichkeit in fact possess. It is also from Strachey’s translation that I have drawn inspiration for defining the mechanism from misunderstanding to realisation in the advert “Misunderstood”, both on the part of the spectator and the boy’s family, as ‘delayed realisation’. Similarly, in Freud’s case studies, we shall see that there are certain degrees of a ‘delayed realisation’ in Freud’s patients.

Nachträglichkeit was a term Freud quite frequently used, but “never offered a definition, much less a general theory” (Laplanche and Pontalis, 1988(1973), p111). Sharing a similar structure of the deferred realisation I have delineated above, nachträglichkeit is the phenomenon when the subject initially encounters an experience (often traumatic) which, for one reason or another, their mind is unable to assimilate, their unconscious then

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preserves it without the conscious knowledge of the subject, and then, much later in their life, the memory is inadvertently ‘activated’, often by an unrelated event. In Freud, nachträglichkeit was a tool to understand the development of sexuality from early childhood. He believed that sexuality existed in the mind in early childhood, but was unrealised due to the sexual immaturity of the physical body. This supposed hidden sexuality would then be ‘activated’ as the child reaches physical sexual maturity in the adult body. It is from here that Freud’s psychoanalysis developed from being simply an attempt to understand the unconscious mind to being more focused on sexuality. It is my contention in this chapter to attempt to dissociate any sexual connotation with the use of nachträglichkeit (even though all of Freud’s case studies pointed to sexuality as the initial cause for nachträglichkeit to take place) in order to reveal the ‘origin’ of psychoanalysis, which can be reconciled with the Post-Theory cognitive approach and contribute dynamically to film theory.

The concept of nachträglichkeit first made its appearance in Freud’s letters to Wilhelm Fliess during 1896-97 (Laplanche and Pontalis, 1988(1973), p112) ⁹. On 6 December 1896, Freud wrote:

> As you know, I am working on the assumption that our psychic mechanism has come into being by a process of stratification: the material present in the form of memory traces being subjected from time to time to a rearrangement in accordance with fresh circumstances - to a retranscription. Thus what is essentially new about my theory is the thesis that memory is present not once but several times over, that it is laid down in various kinds of indications. ¹⁰

Freud imagined that memory was a dynamic ‘process of stratification’, a new layer on top of an older layer of the same piece of memory (hence “not once but several times over”). The new layer comes into being due to “fresh circumstances”, or new experiences, predicated on the passage of time. This idea of a multi-layering of memory would then become explicitly expressed in Freud’s much later work, “A note upon the Mystic Writing-Pad” in 1925 (SE19, p227-232), to which I shall come back later in this chapter.

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¹⁰ Masson (eds), ibid p207. Also, SE1, p233
Meanwhile, this notion of a multi-layered structure of memory is remarkably similar to Bergson’s understanding of memory (MM, p197ff) as illustrated in Chapter 2. In Bergson’s model of memory, represented by his ‘inverted cone’ (Fig. 4.2, also 2.12) of base AB and its pointed end, S, resting on a plane P. Within the cone ABS, there can be thousands of circles (A’B’, A"B", etc), or planes, stacked against one another to form the cone. The cone represents the whole of one’s psychical life, with the base AB representing the start of it, the intermediate circles (A’B’, A"B"…) represent the “repetitions” of the psychic life (i.e. the experiences we have had that form our memory), and the pointed end S representing the now, at “the plane of action”, P. The idea is that when an action is required at the present moment, at point S and on plane P, the brain would “oscillate” within its “psychical cone” (which is equivalent to ‘experience’ or ‘knowledge’ in everyday language) to find the most suitable action. Freud’s understanding of memory can be understood as a more localised version of the Bergsonian model. Rather than generalising the inverted cone to represent the entirety of the psychical life, Freud’s model focuses on particular traumas/memories. The reason for the sheets of memory becoming progressively smaller (hence it is shaped as a cone) in Bergson’s model is because of “discernment” (2004(1896), p78ff), a selection process that picks elements of an “image” that “interests” the organism. In Freud, as seen in his letter to Fliess, there is no clear indication on how the retranscribed memory differs from the previous ones in (metaphorical) size. Hence, a diagram to show Freud’s concept of memory may be illustrated as a cylinder (or in fact any shape) that consists of ‘sheets’ of AB (with its variants A'B' A"B"…) of equal or similar sizes, stacked against each other to form a pile (Fig. 4.3). The original AB represents the initial experience/trauma, and the subsequent surfaces (A'B’, A"B”…) represent experiences that share similarities with the original trauma AB. Meanwhile, as I
demonstrated in Chapter 2, Bergson’s inverted cone shares similarities with Minkowski’s spacetime (Fig. 4.4, also 2.14) in that Bergson’s cone is essentially Minkowski’s ‘past light cone’ (hence another reason for Bergson’s model of memory to take the form of a cone). Given that the notion of multi-layered memory is shared between Freud and Bergson, and that the use of cone(s) is shared by Bergson and Minkowski, and that Minkowski’s spacetime can be used to illustrate eventualities in time travel in the form of possible world-lines within the light cones, one can draw all of these associations back to the multi-layered understanding (so far I have only discussed two) of the teenage boy’s character in the advert "Misunderstood" and infer that memory, time travel, and narrative comprehension are inextricably linked. It should be noted that up to this point, there has not been any connotation of childhood sexuality whatsoever. This will change when we proceed to discuss more deeply Freud’s case studies of nachträglichkeit, where childhood sexuality appears to play an important role. However, I will show that the association with sexuality is nothing but an unfortunate coincidence (after a string of happy ‘cosmic coincidences’) which can be disregarded without risking ahistoricisation or essentialism.
Freud’s case studies of nachträglichkeit

The term nachträglichkeit, or simply nachträglich, can be found scattered over the entire oeuvre of Freud. Laplanche and Pontalis (1988 (1973) have identified two examples that they found ‘particularly illuminating’ (p112).

In the Project (1895), Freud deals with a pathological psychical phenomenon which he calls ‘hysterical compulsion’ (SE1, p347-359). Freud uses one of his patients, Emma11, as an example. Emma had a ‘compulsion of not being able to go into shops alone,’ but she had no problems whatsoever going into shops when accompanied by someone, even a child. She initially recounted a memory that at the age of 12 she went into a shop alone and two shop assistants at the shop were apparently laughing at her clothes. Then, many sessions later, she then finally recalled that one of them “had pleased her sexually”. She fled in fear and could not enter shops alone since. One of the key characteristics of what Freud calls ‘hysterical compulsion’ is that the link between the thing the patient is trying to avoid and the patient’s fear is “unintelligible” (or illogical, to use my term throughout this thesis), as the link is “displaced”, “substituted”, or “symbolised”, making it hard to spot without any detailed analysis. It is the psychoanalyst’s job to establish the correct intelligible and logical link so that the patient can understand the cause of their compulsion and that the compulsion can be resolved. Initially, Freud was unable to make sense of the memory that Emma had recounted. It was only until the analysis dug deeper into recovering another, much earlier piece of memory, that Freud understood that Emma had conflated two memories (that of being laughed at by shopkeepers, and that of being sexually assaulted), and that it was the earlier incident (the sexual assault) which caused the compulsion. In this earlier incident, Emma went into a shop alone where the shopkeeper sexually assaulted her “through her clothes”. Freud identified that the element “clothes” became a substitute for the traumatic experience, which Emma could not have fully understood at the time due to her sexual immaturity. Freud also identified the reason why the fear of going into shops alone did not establish immediately after the initial incident was also due to the patient’s sexual immaturity at the time, or as Freud put it, ‘the retardation of puberty’. Therefore, in the case of Emma, nachträglichkeit took place in multiple layers. First, the sexually immature young Emma mistook her clothes for the cause of a traumatic experience, but it did not yet manifest as the compulsion of not being able to go into shops, and she also consciously forgot about the traumatic experience (as

11 It is claimed that ‘Freud seems not to have mentioned this case elsewhere’ (SE1, p353, n2)
a protective mechanism of the unconscious). Second, it was only when she was now sexually matured that the compulsion, the logical reaction to the initial traumatic experience that should have manifested immediately, started to affect her but because of the gap between the cause (the traumatic experience) and the effect (the fear of going into shops alone) she could not make out the link between the two. Then, it was only when Freud had successfully extracted Emma’s memory of the initial traumatic experience that they were finally able to see the link. It was her sexual immaturity that created the gap between cause and effect.

Another example which Laplanche and Pontalis find illuminating regarding the demonstration of nachträglichkeit is one of Freud’s more famous case studies: the “Wolf Man” (SE17). The “Wolf Man” was a young man in his mid-twenties, who had a recurring terrifying dream, since age four, of many white wolves on a tree; the Wolf Man had been afraid of being eaten by the white wolves since. When the Wolf Man told Freud about the dream, and after many sessions, similar to the case of Emma, Freud interpreted that the dream was as a result of an activation of an old memory which the Wolf Man had at the age of one and a half, in which he inadvertently witnessed his parents’ intercourse. The ‘activation’ came as a result of a progressive development that Freud reported extensively, such as the Wolf Man’s overtly sensual sister, the picture book containing pictures of wolves with which his sister used to scare him, fairy tales that the Wolf Man had known since being a small child such as “Little Red Riding Hood” and “The Wolf and the Seven Young Goats”, the strict English governess, “his beloved Nanya” (in particular the episode in which Wolf Man was playing with his penis in front of her, and she threatened him with castration) and his subsequent masochistic tendencies towards his father and his sadistic tendencies towards Nanya (SE17, p8-37). Apart from the recurring terrifying dream being as a result of nachträglichkeit, in fact, the psychoanalytic therapy itself, which the Wolf Man initiated at age 24, was also a form of nachträglichkeit, especially when one considers that Freud was dealing with “an infantile neurosis which was analysed not while it actually existed, but only fifteen years after its termination.” (p8) Interestingly, Freud believed that while an analysis conducted upon a neurotic child is more “trustworthy” as the volatile memory would have still been fresh in the child, an analysis “through the medium of recollection in an intellectually mature adult” is more “instructive” (p9), as an adult would have understood their past experience in his memory, albeit faded, a lot more than he would have done as a child. As a child, the Wolf Man could not have understood any of the highly sexually charged experiences when he was growing up. However, the sexual,
as well as intellectual, maturity in the adult Wolf Man facilitates the kind of ‘delayed realisation’ like the family members realised the true intention of the teenager in the advert “Misunderstood”.

In both cases of Emma and of the Wolf Man, their experiences of nachträglichkeit lie in their delayed/postponed understanding of their sexuality. Therefore, for Freud, childhood sexuality became a convenient and natural tool to explain the mechanics of repressed memory, because the deferred nature of sexual development, the “retardation of puberty”, and the inherent ‘prematureness’ (SE1, p357) of sexually charged incidents experienced by the sexually immature person would naturally cause a disparity between the time at which the traumatic incident happens and the time at which the person realises its significance; hence it leads to an experience of nachträglichkeit, or a ‘delayed realisation’.

We invariably find that a memory [of a sexual nature] is repressed which has only become a trauma by nachträglichkeit12. The cause of this state of things is the retardation of puberty as compared with the rest of the individual’s development. … Every adolescent individual has memory-traces which can only be understood with the emergence of sexual feelings of his own; and accordingly every adolescent must carry the germ of hysteria within him. (SE1, p356)

Childhood sexuality only works as a convenient tool to illustrate the mechanics of an experience of nachträglichkeit; the mechanics of nachträglichkeit itself only constitute a delay in time and are otherwise neutral in any connotation. In fact, Freud would then go on to focus on questions on sexuality rather than on the element of ‘delayed realisation’ in nachträglichkeit that I have found much more enlightening, and, crucially, free of sexual connotation. Freud appeared to have identified nachträglichkeit as a symptom whose cause is hidden childhood sexuality. And, just as any good doctor would like to tackle the cause of an illness rather than the symptom, Freud shifted his focus on problems of sexuality instead. In this way, nachträglichkeit marked a “turning point” for psychoanalysis to shift its focus from the mechanics of memory to that of repressed sexuality. This would

12 I have swapped the English translation, “deferred action”, back into the original German, nachträglichkeit, to avoid any of the issues resulted from translation.
explain why Freud never fully developed nachträglichkeit into a full theory. Some writers have even mistaken Freud for dropping the concept entirely.\(^\text{13}\)

**Nachträglichkeit in cinema**

“Misunderstood” and *Citizen Kane*

The use of an advert as my key ‘film’ example for this chapter is surely an unorthodox choice. However, “Misunderstood” has all the qualities of a good narrative film: it has a clear, yet structurally elaborate, narrative arc; also, all the mise-en-scène elements, clever use of music and swift editing are purposefully driven by the narrative. Not only is “Misunderstood” a miniaturised narrative film, but it also best illustrates how the concept of nachträglichkeit can be applied to narration and narrative comprehension. The nachträglichkeit lies in the ‘delayed realisation’ of the teenage boy’s true intention of always focusing on his phone. During the first half of the advert, by not including shots showing the screen of the boy’s phone (or any other way that suggests the boy is shooting and editing on his phone), the spectator is simply denied the vital information of what the boy is doing with his phone, hence fails to arrive at the correct conclusion which is the boy’s true intention, but instead makes false hypothesis that the boy is detached from his family. Bordwell claims “every syuzhet uses retardation to postpone complete construction of the fabula.” (1985, p52) In the case of “Misunderstood”, the “retardation” is the deliberate obscuring of what the boy is doing with his phone, and the result of this “retardation” is a ‘delayed realisation’, an experience of nachträglichkeit.

Childhood sexuality finds its place in Freud’s case studies that illustrates nachträglichkeit because the child is not equipped with the necessary physiological as well as mental maturity to fully understand the impact the sexually charged, often traumatic, event. Imagine one of Freud’s patients, who experienced a traumatic sexual encounter in their childhood and had just discovered about the nachträglichkeit that manifests in the gap between their neurosis and the initial traumatic experience, travelled back in time to when they had just experienced the traumatic event and explained to their young self the sexual significance of the event, the patient’s younger self would not be able to understand it, and nachträglichkeit would still occur and develop into a later

\(^{13}\) See Laplanche, 1999, p235
neurosis. Similarly, if the boy announced that he was going to make a well-polished, professional-looking home movie about his family’s Christmas celebrations before he began the trip, neither the spectator nor the boy’s family would have experienced quite the same emotional impact as in the actual advert. In other words, one could argue that nachträglichkeit, as ‘delayed realisation’ after a passage of time, is needed to understand the sexual nature of the traumatic encounters for Freud’s patients, and the emotional impact on the spectator of “Misunderstood”, as well as the boy’s family.

This is also illustrated by Citizen Kane. In Chapter 3, I used it as an example to illustrate how the first-time spectator works with elements from the syuzhet to form the fabula as well as attempting to answer the question set to them (and resonated by Mr Rawlston, the chief editor) “what is Rosebud?”. I alluded to the fact that some of the syuzhet elements would appear insignificant (the glimpses of the sledge), or may draw different interpretations (Kane’s reaction when Susan, his (future) second wife, talks about “how mothers are like”) compared to a repeated viewing of the same elements. Similar to the experience of nachträglichkeit, the first-time spectator of Citizen Kane has no way of knowing that “Rosebud” refers to Kane’s sledge because they are simply denied the sight of the word on the sledge, hence the knowledge of it, just as the sexual immaturity in Freud’s patients have denied them the tools to understand their sexual experiences at the time of their initial traumas. A shot that shows the word “Rosebud” on a sledge is only visible to the spectator right at the very end of Citizen Kane, only when the spectator has been equipped with knowledge of Kane’s upbringing, his rebellious youth, his failed political career, loss of friendship with Jedediah and the two failed marriages, to help them understand the significance of the symbolism carried by the sledge. Just as someone could tell Freud’s future patient about the sexual nature of their traumatic encounters, or the patient himself can travel back in time to tell his younger self, or “Misunderstood” makes it clear right from the start the the teenage boy is about to make a home movie, someone could easily provide a ‘spoiler’ to the first-time spectator of Citizen Kane telling them that “Rosebud” is the name of Kane’s sledge and that it signifies his lost childhood14. It would not have mattered, Freud’s ‘future patients’, who were sexually immature young children, would not be able to understand, just as the information ‘Rosebud is Kane’s sledge’ would not make much sense to the first-time spectator at the start of Citizen Kane, because, without knowing Kane’s life, the spectator is not yet ready to fully understand

14 Recall the joke I referred to in an episode of the comedy animated series Family Guy about ‘spoiling’ Citizen Kane (note 15, Chapter 3).
this knowledge. Again, nachträglichkeit, a ‘delayed realisation’ over the time span of almost the entire film which also depicts Kane’s whole life, is needed to fully understand the significance of the final shot of Citizen Kane.

Meanwhile, for the repeating spectator, the relationship between syuzhet and fabula is practically the reverse of the first-time viewing experience: instead of working from syuzhet elements to form the fabula, the repeating spectator already possesses the fabula that they have constructed during their first viewing, which is then used as references to look more closely at the syuzhet. This repeated viewing experience also resembles the experience of nachträglichkeit in that the fully constructed fabula is not yet available in the spectator’s cognition before they have finished watching the film for the first time. Only when the spectator has the knowledge of the fabula will they be able to discern any ‘hidden’ elements within the mise-en-scène in the syuzhet that points to the fabula, such as young Kane’s sledge and ‘Rosebud’ in Citizen Kane.

Mind-game films or puzzle films

The repeated viewing experience is arguably one of the biggest appeals in what Thomas Elsaesser terms as the “mind-game films”, or the “puzzle films”, which is a term preferred by Warren Buckland (2009, 2014). Because of the complexity of the “mind games”, or “puzzles”, involved in these films, the spectator often misses elements in them that can only be enjoyed upon repeated viewing. Elsaesser (2009a) offers a “broad description of the mind-game film” as “movies that are ‘playing games’” in two different ways. One of the ways “games” are being played is when “a character is being played games with, without knowing it or without knowing who it is that is playing these (often very cruel and even deadly) games with him (or her)”. Elsaesser cites Silence of the Lambs (Jonathan Demme, 1991), Se7en (David Fincher, 1995) and The Truman Show (Peter Weir, 1998) as some of the examples. The other way in which “games” are played in “mind game films” is when the spectator is being played games with “because certain crucial information is withheld or ambiguously presented” (p14): The Usual Suspects (Bryan Singer, 1995), Fight Club (David Fincher, 1999), The Sixth Sense (M Night Shyamalan, 1999) and Memento (Christopher Nolan, 2000) are among the examples he uses. Despite the rise in popularity of the “mind-game films” seemingly only to have come since the 1990s, Elsaesser reports that “mind-game films” already existed in early- to mid-1910s, when the “cinema of attractions” was said to be transitioning to the “cinema of
narrative integration” (Chapter 1), and that the rise in popularity in the 90s was only a “reemergence” (p38). According to Elsaesser, “a German director, Joe May, initiated a successful, if brief vogue for so-called “Preisrätselfilme”, or prize-puzzle-films, as a sub-genre of the Danish-inspired detective film genre, where clues were planted without being revealed at the end. Instead, prizes were offered to spectators who identified them” (p16). The “mind-game films” seem to be at once of narrative cinema and of (the return to) “cinema of attractions” because these films employ complicated narrative structures, the enjoyment of which constitutes an ‘attraction’ itself. As Elsaesser puts it, “one overriding common feature of mind-game films is a delight in disorienting or misleading spectators” with the use of “hidden or altogether withheld information”, “plots twists and trick endings” (p15). Hence, for Elsaesser, the “mind-game films” are

indicative of a ‘crisis’ in the spectator-film relation, in the sense that the traditional ‘suspension of disbelief’ or the classical spectator positions of ‘voyeur,’ ‘witness,’ ‘observer’ and their related cinematic regimes or techniques (point-of-view shot, ‘suture,’ restricted/omniscient narration, ‘fly on the wall’ transparency, mise-en-scène of the long take/depth of field) are no longer deemed appropriate, compelling, or challenging enough. (p16)

However, instead of alleviating the “crisis” in the spectator-film relation, he believes that “mind-game films”

set out to aggravate the crisis, in that the switches between epistemological assumptions, narrational habits, and ontological premises draw attention to themselves, or rather, to the ‘rules of the game.’ These rules … favour pattern recognition (over identification of individual incidents), and require cinematic images to be read as picture puzzles, data-archives, or ‘rebus pictures’ (rather than as indexical, realistic representations). (p39)

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While *conventional* narrative cinema strives to maintain the ‘reality effect’ of the moving image by drawing as little attention from the spectator’s disbelief as possible by means of continuity editing and various other techniques, “mind-game films” seem to do the opposite and emphasise on extraordinary nature of film narrative, deliberately drawing the spectator’s attention to it and inviting them to work out the narrative ‘puzzle’. Notice that in Elsaesser’s delineation there is an implied shift in film from psychoanalysis and semiotics to the cognitive approach of “pattern recognition”. The (re)emergence of the “mind-game films” seems to coincide with the fall of classical film theory, of Grand Theory, and the rise of Post-Theory cognitivism; the “crisis” in the spectator-film relation warrants Bordwell’s ‘case for cognitivism’. However, there are undeniable similarities between spectatorship of “mind-game films” and the Freudian concept of nachträglichkeit that make for the ‘case for the return of psychoanalysis’ in Film Studies.

Like “Rosebud” in *Citizen Kane* and the teenage boy's true intention in "Misunderstood", "mind game films" are full of elements that are purposefully arranged to go unnoticed by the first-time spectator. This is characterised by the second type of "movies that are playing games" in which the spectator is being played games with, as described by Elsaesser. The spectator often only realises they have been fooled, misled, or withheld information at the end of the film when there is a ‘reveal’. the spectator’s ‘delayed realisation’ compels them to re-watch the film and work out how they have been fooled the first time around. Daniel Barratt (2009) describes his repeated-viewing experience of *The Sixth Sense*, perhaps the “mind-game film” *par excellence*:

The main thing which struck me when watching *The Sixth Sense* a second time round was the hospital scene in which child patient Cole Sear (Haley Joel Osment) reveals that he can “see dead people” — dead people who “don’t know they’re dead” — while the camera is focusing in on Dr Malcolm Crowe (Bruce Willis). In this scene, the writer and director M Night Shyamalan effectively waves the film’s celebrated narrative twists in the face of the viewer. Considering the explicit nature of both the dialogue and the method of filming — for example, Cole’s statement that these dead people “walk around like regular people” is immediately followed by a close-up of Malcolm — why does the first-time viewer fail to make the connection between Cole’s revelation and Malcolm’s situation? With regard to this particular scene, Frank Marshall, one of the
producers of the film, states: “I actually thought we had overdone it. I actually thought we’re giving too much away here.” (p62)

Clearly, they did not. Barratt then goes on to carry out a textual analysis on how the first-time spectator is tricked into falsely believing that Malcolm is alive during the film. Of course, to be able to do such analysis requires the analyst to have watched the film at least once, and to know full well what the fabula is and where in the syuzhet the ‘tricks’ have been played upon the spectator, i.e. a process of nachträglichkeit that characterises Laura Mulvey’s “delayed cinema” in the sense that “delay” is “the essential process behind textual analysis” (2006, p144) (see Introduction). In Barratt’s analysis (p80), during the pivotal hospital scene where there are the supposedly “explicit” clues (of Malcolm’s close-ups), the doctor-patient relationship between Malcolm and Cole (which is one of the decoys to divert the first-time spectator’s attention from questioning Malcolm’s existence) is cemented and Malcolm and Cole open up to each other. Barratt identifies that the question the goal-oriented cognitive spectator has been trying to answer up to this point is “What is the cause of Cole’s anxiety?” Then, since Cole’s revelation that he “can see dead people”, the question is changed to thinking whether Cole can actually see ghosts, or is it all in his imagination that causes his apparent mental issues. Malcolm then reinforces the need for the spectator to think about this question by saying to his Dictaphone of the possible “some kind of school-age schizophrenia”. Therefore the question “Is Malcolm one of the ‘dead people’ Cole sees?” has never entered the first-time spectator’s cognition since the film’s first scene where Malcolm is shot. The question “Why does the first-time viewer fail to make the connection between Cole’s revelation and Malcolm’s situation?” is only a question that a repeating spectator is able to ask, after a process of nachträglichkeit — having already known that Malcolm is dead during the entire film, and that they have been fooled during their first-time viewing experience — just as Freud’s patients can only make the connection between their initial trauma and their neurosis after their process of nachträglichkeit.

In fact, the most explicit clue/reveal in The Sixth Sense is not the hospital scene, but the very first scene, where the spectator sees Malcolm getting shot. However, the film uses clever techniques that utilise the mechanics of cognition to play a ‘sleight of hand’ on the (first-time) spectator. The ‘sleight of hand’ (mis)leads the spectator to forget about the first scene, whilst still retaining it enough to be recalled at the end, when the film reveals the secret that is hidden in plain sight. This is similar to Freud’s patients, who
forget about their initial traumatic experiences in their consciousness, but still retain the memories of them in their subconscious so that they can be recalled by subsequent events, triggering their neurosis. The false objective nature of Jonathan’s (Richard Todd) recounting of his experience in *Stage Fright* (Alfred Hitchcock, 1950); the illusion that the surviving witness, Verbal (Kevin Spacey), and the escaped and mysterious perpetrator, Keyser Söze, are two different people in *The Usual Suspects*; and, the seemingly unrelated nature of the death of an unknown man in both *La Jetée* and its adaptation *12 Monkeys*: these are all first scenes that hide their secrets in plain sight, hence leading different interpretations by both the first-time spectator, before the secret is revealed, and the repeating spectator, after the secret is revealed. It is interesting to note that whilst in conventional narrative cinema the first scenes are there to ‘train’ the cognitive spectator of what is to come (as demonstrated by *Rear Window* in Chapter 3), in mind-game films the ‘training’ becomes ‘misleading’, which can only be exposed as such by the repeating viewing experience. For the repeating spectator, the first scene is clearly a depiction of Jonathan’s fabrication in *Stage Fright*; in *The Usual Suspects*, the killer who murders Keaton (Gabriel Byrne) at the beginning is clearly Verbal; and, in *La Jetée / 12 Monkeys*, the unknown man who dies at the beginning is clearly the main time-travelling protagonist. In this sense, the first half of the advert “Misunderstood” also constitutes a ‘first scene’ that invites different interpretations depending on whether the spectator sees it for the first time, or as repeated viewing. The first-time spectator sees the teenage boy as a stereotypical teenager who is detached from his family, whereas the repeating spectator sees him as a loving and caring member of the family who is painstakingly creating a home movie that everyone can enjoy.

One of the analogies Elsaesser uses to describe the “mind-game films” is what he calls “picture puzzles”. This analogy is also precisely why the repeated viewing experience, one that is characterised by nachträglichkeit, is tied closely to the “mind-game films”. Elsaesser explains that, in a “picture puzzle”, “something is revealed that was always there, but hidden in another more conventional configuration, and which in order to be recognised, requires a kind of resetting of perceptual or cognitive default values. A picture puzzle is also an image which via a different organisation of the separate parts allows different figures to be recognised; it is an image which contains figures (usually animals, objects, bodies) which cannot be identified at first glance and require for their recognition an adjustment on the part of the viewer” (2009a, p40, n1) Examples of “picture puzzles” include Rubin’s vase (a picture developed by Danish psychologist Edgar Rubin in the
1910s, that depicts either a vase or the silhouettes of the side profiles of two human faces facing each other) (Fig. 4.5) or the rabbit-duck illusion (Fig. 4.6) made famous by Wittgenstein. The similarity between such “picture puzzles” and “mind-game films” is that they both offer two (or sometimes more) ways for interpretation. Also, once one has seen the alternative way of looking at these “picture puzzles”, one cannot unsee it.

The third layer of understanding “Misunderstood”

The nature of the archive:

“Misunderstood” represents a miniaturised version of a narrative film, one that may even qualify as a “mind-game film” in that the spectator is tricked at first. I have used “Misunderstood” to demonstrate the nachträglichkeit in the cognitive spectator. And, above all else, it is an excellent advert in that it promotes the products very well. The iPhone, the main product that the advert is selling, features prominently as it is in the teenage boy’s hand every time the spectator sees him, but also subtly enough so that the advert does not feel like a ‘hard sell’ which can turn potential customers away. The advert also shows off all of the then-new headline features of the iPhone in equally prominent but subtle fashion, namely the ability to beam a video onto a TV, the quality of the built-in camera, its slow motion capabilities, and the fact that you can film, edit and present a professional-looking video entirely using the little iPhone, as the boy did. Furthermore, the consumer electronics giant marries traditional Christmas spirit, recalled by “Have Yourself A Merry Little Christmas” and familiar scenes of family celebrations, with modern technology, especially in the Apple brand. Like the boy who is misunderstood at the
beginning by both the diegetic family) and the spectator, it is as though the advert is also commenting on the fact that technology is similarly misunderstood, as something that damages and segregates the interaction between people in modern society. When one tries to construct an iconography of the stereotypical asocial teenager, the mobile phone is almost always integral to that image (hence the success of the ‘trick’ in the first half of the advert). What the advertisement does is to try to show that technology, in particular the iPhone (because it is an advert for it!), instead of isolating people, can, in fact, reconnect people and form strong bonds amongst them. The large-screen television in the living room, which conjures up early images of families sat around the hearth, becomes the focal point that connects all of the family members when the boy shows off his home movie made entirely on his iPhone. The iPhone together with the television (the connection of which incidentally requires additional Apple-specific hardware to function) becomes a tool for the whole family to connect and bond, which then leads to the overwhelming reactions by the family in the last shot of the advert. In the end, technology affords the boy with an even stronger tool than simply taking part in the family celebrations. This is the note on which the advert ends. It has been a happy ending. At first glance, this seemingly heartwarming advert has succeeded in clearing the good name of technology, and promoting its capability of possibly providing an even stronger means to shape the relationship and interaction between people in modern society than traditional communication. However, similar to the spectator falsely believing that Malcolm is alive, Keyser Söze and Verbal are two different people, etc., I urge the reader to reconsider whether the ending portrayed in “Misunderstood” is the entirety of the truth.

There is yet another nachträglichkeit to take place in reading this advert; there is a "third level" of understanding. Like the proverbial glass which can either be half empty or half full, the 'happy ending' reading of the advert is only the 'half full' side of the story. What follows is the "half-empty" reading. For me, when the advert is trying to clear the good name of technology (the half-full interpretation), it is also inadvertently showing the malevolent side of technology. Ironically, this ‘malevolent side’ is (almost) the same as the unfavourable reputation of technology that the advert is trying to clear — that of isolating people and hindering human interaction. It is most ironic because the ‘misunderstanding’ towards technology turns out to be correct; there is no misunderstanding after all. To add insults to injury, on this ‘third level’, I’m also proposing that the teenage boy has never been misunderstood either.
The ‘third level’ reading concerns the true nature of the archive and how it is often mistaken of its true purpose. In the advert, the boy makes use of his home movie, aided by the advanced technologies on his smartphone, as a strong and effective communications tool to bond with his family. The home movie is in effect an archive, an archive that records the fragments of the family holiday. Apropos the ability of the moving image to record fragments of a family life, one can trace its roots all the way back to the Lumières, with two of the earliest films publicly screened in 1895 — La Pêche aux poissons rouges (Fishing the Goldfish) and Repas de bébé (Baby’s Dinner) — both depicting Auguste and his baby daughter, Andrée, having some family time. The evolution of image capture technologies has certainly benefited in democratising such making of ‘home movies’. Today, many own a smartphone equipped with a built-in camera that is capable of producing excellent quality videos, just as the teenage boy did in the advert. However, I would argue that this acceleration in democratisation of ‘home movie’-making is the culprit of our distorted, verging on pathological, relationship with temporarily that characterises modernity, filled with easy image capture technologies and equally easy and ubiquitous ways to share images and videos (in social networks and video sharing sites). The advancement in image capture technologies has led to a false belief that memories can be stored outside of our minds, and time can be halted by way of capturing images and videos. I would argue that it is this false belief that has (mis)led to the taking of “selfies”, holiday snaps, home movies, etc, to try and make a record of a trip, a birthday, holiday celebration, a wedding, a concert, etc, because we are all fully aware that time does not go backwards and we would like to somehow retain those so-called ‘once in a lifetime’ moments.16 It is also this false belief that has led the teenage boy in “Misunderstood” to create his video, an archive of his family Christmas.

Because the boy was busy making the archive while everyone else was enjoying themselves in Christmas celebrations, he missed out on enjoying Christmas at the time it actually happened. In effect, the boy has not been misunderstood after all because he genuinely did distance himself and did not join in with the family celebrations. The boy can only experience the Christmas which he recorded through his own recordings, as

16 The realisation of the irreversibility of time is only one possible explanation for the obsession of making archives of photos and videos of “once in a lifetime” events. Traditional psychoanalysts would suggest reasons such as idealised mirror identification (“selfies”), fetishisation and asserting (a false sense of) control over objects in memorable events (e.g. a singer at a concert), to name but a couple. Structural semiologists, meanwhile, would recognise this as a cultural endeavour that is the result of the advancement of image capture technologies arising from the penetration of the capitalist ideology and image culture that has shaped modernity.
nachträglichkeit, instead of an actual experience. His actual experience was of creating a video, as the spectator has clearly witnessed during the first half of the advert in which he was constantly looking at his phone. However, the diegetic family, as well as the spectator, have been moved by the boy and his video, and realised that the boy, instead of being disinterested, in fact, loves his family, and has made an effort to create the video so that the family can enjoy. Therefore, it does beg the question: is it better to show your love to your family at Christmas by not joining in with any of the family activities? By this twisted interpretation of the advert, it leaves us no choice but to agree. And, I believe that this is due to the misconception of what an archive is. In fact, as I shall explain, the archive inherently induces nachträglichkeit and effectively stops the archiver from ‘living in the moment’, hence creating a distorted experience in their temporality.

Archive, psychoanalysis and time:

By considering the first two layers of understanding the advert “Misunderstood”, and by appropriating the Freudian concept of nachträglichkeit in film narration, it has been my attempt to reconcile psychoanalysis with the cognitive approach to film narration and narrative comprehension. By way of yet another process of nachträglichkeit, I am proposing a third layer to reading “Misunderstood”. This time I am also using Freudian psychoanalysis to discuss concerns relating to the nature of the moving image itself, its nature as an archive of past moments.

In Archive Fever: A Freudian Impression (1995), Jacques Derrida observes a multi-layered relationship between the archive and the Freudian psychoanalytic discourse. Derrida comments on the nature of the archive by breaking down the Freudian psychoanalytic enterprise into multiple layers: the Freudian psychoanalytic discourse (psychoanalysis itself), Freud’s writing and practice (the act of archiving psychoanalysis), the relationship between Sigmund Freud and his father, Jakob, who to a certain extent, is “the grandfather of psychoanalysis” (the “archiver”, or as Derrida alludes to ancient Greece from where the word ‘archive’ originated, the archons), and the historical discourse written on Freud in the form of Yosef Hayim Yerushalmi’s Freud’s Moses: Judaism Terminable and Interminable (1991) (“an archival book on the archive”) (p58). As much as psychoanalysis had proved fruitful in the realm of cinema and media studies for its explicatory power in spectatorship, and then subsequently refuted for its allegorical nature and thin scientific basis by the Post-Theory cognitivists, psychoanalysis is, above
all else, at its core, a study of memory (the psychic apparatus), and, in particular, its relationship with the experience with time, as evidently shown by the nature of ‘delay’ in the Freudian concept of nachträglichkeit. The writing trace has always interested Derrida, who finds the Freudian discourse useful on matters concerning memory and temporality in “Freud and the scene of writing” (2001(1967)) and, of course, Archive Fever. He argues that psychoanalysis, itself already an archiving endeavour on the archive (memory), has become the way we come to understand it now (or at the time of Derrida’s writing, 1995, which was not so long ago, but was different nonetheless\footnote{The year 1995, apart from being the centenary of the birth of cinema, marked by the release of the first feature-length computer-animated film, Toy Story (John Lasseter, 1995), also saw what was effectively the beginning of consumer computers and the Internet as we know it today, with the release of Netscape Navigator in late 1994, and Microsoft’s Windows 95 operating system.}) because of the inherent nature of the archive and the act of archiving. What Archive Fever shows is that the study of psychoanalysis is like an endless peeling off of layer after layer of archive and archiving: psychoanalysis is the archiving (documenting) of the archive (Freud’s case studies) of an archive (the psychic apparatus). For Derrida, the structure of the archive - its rules and its means of archiving - affects the content in the archive:

... the technical structure of the archiving archive ... determines the structure of the archivable content even in its very coming into existence and in its relationship to the future. The archivization produces as much as it records the event. (p17)

Moreover, the “technical structure of the archiving archive” is predicated on the time at which the archive is made, because the archiving technology available at any given time determines how the archive is being archived.

... in the past, psychoanalysis would not have been what it was ... if E-mail, for example, had existed. And in the future it will no longer be what Freud and so many psychoanalysts have anticipated, from the moment E-mail, for example, became possible. (ibid.)

Of course, at the time of Derrida’s writing of Archive Fever, the most advanced and relevant archiving technology available was the E-mail (which is actually more of a communications technology, but archiving and communication are inseparable). One of
the areas in which advancing archiving technologies could have changed psychoanalysis, as Derrida points out, is the difference in speed of delivery between hand-written letters and E-mail: one takes time to write and deliver whereas the other is almost instantaneous. In fact, Derrida goes so far as to say that archival technology does not just determine “merely the moment of the conservational recording, but rather the very institution of the archivable event... This archival technique has commanded that which in the past even instituted and constituted whatever there was as anticipation of the future” (p18, my emphasis) as to what is defined as ‘archivable’, or, as I would like to call it, ‘archive-worthy’. Therefore, regarding psychoanalysis itself, Derrida asks, had Freud known of more evolved forms of archiving technology from which he could draw more influence than the Mystic Writing-Pad, would the psychic apparatus be “better represented or affected differently by all the technical mechanisms for archivisation and for reproduction, for prostheses of so-called live memory, for simulacrum of living things which already are, and will increasingly be, more refined, complicated, powerful than the ‘mystic pad’ (microcomputing, electronisation, computerisation, etc.)?” (p15)

Freud’s choice of the Mystic Writing-Pad as an analogy for his model of memory is itself a peculiar one. As Mary Ann Doane has noted, Freud could have chosen from an array of contemporary technologies at the time, such as the cinema, photography, or phonography, but instead he chose “the comparatively old-fashioned” ‘toy’ which was the Mystic Writing-Pad (2002, p35). However, the Mystic Writing-Pad represents Freud’s most direct analogy for his understanding of the mechanics of our psychic apparatus, despite it only appearing in a short, and somewhat isolated, piece of writing in Freud’s corpus, in “A note upon the Mystic Writing-Pad” (SE19). In Freud’s model of the psychic apparatus (Fig. 4.7), there is “an unlimited receptive capacity” and a “retention of permanent traces”
Also, in the perceptual apparatus, there is a surface on which one receives stimuli and a "protective shield against stimuli" (p.230) on top of it. Meanwhile, the Mystic Writing-Pad was a contraption which also consisted of a couple of layers (Fig. 4.8): on it one "writes" by applying pressure with a stylus or finger on a piece of transparent celluloid that sits on top of another substrate, a wax slab. The pressure causes the celluloid to come together with the substrate underneath and "etchings" of writing appears. To erase the writing, simply raise the transparent celluloid to break the contact between the two surfaces. The Mystic Writing-Pad works for Freud as a model of our psychic apparatus because it seems to be the closest analogy to his model at the time. The fact that the Mystic Writing-Pad is very much a very old piece of contrivance, or even a children's toy, all the more makes Derrida's emphasising on the contemporariness of archiving technology more significant. Derrida even imagines that "Freud, his contemporaries, collaborators and immediate disciples, instead of writing thousands of letters by hand, had had access to MCI or AT&T telephonic credit cards, portable tape recorders, computers, printers, faxes, televisions, teleconferences, and above all E-mail." (p16) Little could Freud or Derrida have imagined that a teenage boy in 2013 could make an archive of his family Christmas in the form of a professional-looking movie with a tiny communications device that can fit in his pocket, something that unfortunately neither Freud nor Derrida would see in their lifetime. Of course, the electronic tablet that came after the modern smartphone in the technological evolution will make what Derrida calls a "retrospective science fiction" (ibid.) even more interesting as parallels can clearly be drawn between the tablet and the Mystic Writing-Pad: not only are they both in the shape of 'slabs', on the tablet, the glass surface, the touch sensors beneath it and the chipsets and flash storage that are installed beneath the screen are all comparable to Freud's model of the psychic apparatus. Where is a time machine when we need one to give Freud a tablet?
However, as Elsaesser reminds readers of Freud of his “well-known and often-discussed ambivalence towards modern technology, especially media technologies”, one cannot be certain if Freud himself can see the parallel that I am suggesting here between the modern smartphone / tablet and his concept of the psychic apparatus:

... in the face of the invasion of mass media he was, above all, a cultural conservative, as if his invention of psychoanalysis was aimed at preserving the embodied and gendered nature of communication against its increasing disembodiment, mechanisation, decontextualisation and automation. ... by all accounts Freud made little use of modern technology in his everyday life. He did not like radio, he was shy of photography, he used the typewriter sparingly and preferred to compose in longhand, and he refused to have the telephone connected to his consulting room or his private office. He certainly disapproved of the cinema, withdrawing his cooperation from a famous filmmaking project intended to popularise psychoanalysis, G.W. Pabst’s *Geheimnisse einer Seele / Secrets of a Soul* (1926). But perhaps the most crucial evidence of his technophobia, given that the basic technique of psychoanalysis (the talking cure) is that of recording speech, is the fact that he did not use the Dictaphone or any other recording technology of speech and voice. (2009b, p105)

But despite his seemingly antagonistic relationship with media technologies, Elsaesser still considers Freud a “media theorist” of his time. He notes that ideas from “Beyond the Pleasure Principle” are taken by Walter Benjamin (1936) in his conception of “the optical Unconscious” with a similar protective mechanism, as in Freud’s model of the psychic apparatus, against “perceptual overstimulation” (Elsaesser, p104). Also, Elsaesser points out Derrida was “the first commentator to suggest that Freud possessed a media theory” in “Freud and the scene of writing”, by way of the Mystic Writing-Pad. But, for me, perhaps the most significant feature in Freud’s own delineation of the Mystic Writing-Pad is that he inadvertently summed up the *original* purpose of the practice of psychoanalysis (instead of the more widely known repression of desires and sexuality). Writing in 1925, the first sentence of “A note upon the Mystic Writing-Pad” signals a possible return to the *origin* of psychoanalysis in the *Project* in 1895:
If I distrust my memory… (SE19, p227)

The original reason for psychoanalysis is that memory is to be distrusted. It is Freud’s original intention in the Project to investigate that sometimes memory may not function as it is supposed to (i.e. to remember). Memory becomes unreliable for Freud’s patients suffering from neurosis or psychosis (as demonstrated in the case studies of nachträglichkeit, in the delays between the initial traumatic events and the reactions); or, in fact, for “normal people”, as Freud puts it, with their ordinary forgetfulness. Freud posits that the psychic apparatus is constantly undergoing two contradictory drives. Using the Mystic Writing-Pad, he explains:

If we imagine one hand writing upon the surface of the Mystic Writing Pad while another periodically raises its covering sheet from the wax slab [hence erasing the writing], we shall have a concrete representation of the way in which I tried to picture the functioning of the perceptual apparatus of our mind. (SE19, p232)

This natural phenomenon of writing and erasing at the same time in the psychic apparatus is what psychoanalysis sets out to study. Freud explains the inherent forgetfulness of the psychic apparatus by the various instincts that he postulates, such as the self-preservation instinct of the ego (“conservation drive”) and the death instinct (“death drive”). Meanwhile, to combat the inherent forgetfulness, Freud suggests a substitute that can supplement and guarantee its working by making a note in writing. In that case the surface upon which this note is preserved, the pocket-book or sheet of paper, is as it were a materialised portion of my mnemonic apparatus, the rest of which I carry about with me invisible. I have only to bear in mind the place where this “memory” has been deposited and I can then “reproduce” it at any time I like, with the certainty that it will have remained unaltered and so have escaped the possible distortions to which it might have been subjected in my actual memory. (p.227)

What Freud has described is precisely an archive. Its purpose is to aid memory to combat our inherent forgetfulness (the death drive), rather than to replace memory altogether. It is worth noting the clear distinction between the archive and memory: whereas the archive
is only “a materialised portion” of memory but can be reproduced “with the certainty” that it will be “unaltered”, memory is subjected to “distortions”; hence we may forget our passwords, the Post-it notes does not. The death drive leads us to forget our passwords, but the conservation drive also leads us to write the passwords on Post-it notes. However, as Freud writes the caveat “I have only to bear in mind the place where this ‘memory’ has been deposited”, the death drive may strike again and makes us forget on where the Post-it note is stuck. Of course, the conservation drive can carry out a preemptive strike by sticking the Post-it note on the computer screen, where the passwords are most likely needed\textsuperscript{18}. Such internal conflict between the conservation drive and the death drive is what Derrida calls “archive fever”:

The death drive tends thus to destroy the hypomnesic archive [memory], except if it can be disguised, made up, painted, printed, represented as the idol of its truth in painting. Another economy is thus at work, the transaction between this death drive and the pleasure principle, between Thanatos and Eros, but also between the death drive and this apparent dual opposition of principles, of archai, for example the reality principle and the pleasure principle. The death drive is not a principle. It even threatens every principality, every archontic primacy, every archival desire. It is what we will call, later on, \textit{le mal d’archive}, “archive fever”. (1995, p12)

It is precisely because of “archive fever”, the internal conflict between our “death drive” and “conservation drive” (as well as the reality principle and the pleasure principle, as I shall explain later) that reminds us that time is irreversible. The conservation drive is haunted by the prospect of ‘we will never see it again’, as well as the forgetfulness that the death drive imposes upon us, we tend to take photos and videos at special occasions, events that we know will be significant in our timelines, and that are often characterised by the oft-used phrase ‘once in a lifetime’, such as family celebrations, weddings, trips, etc. The urgency created by ‘once in a lifetime’ is also accelerated by the advent of social media sites such as Facebook, which even visualises our timelines (in fact, the main portion of the user’s personal page on Facebook is called the Timeline) that are formed of

\textsuperscript{18} The ‘conservation drive’ describes our internal mechanism that protects ourselves. The ‘conservation drive’ can lead to repression of memories that bring displeasure, hence creating the experiences of nachträglichkeit by Emma and the Wolf Man, who could not remember the reasons behind their irrational fear, because their ‘conservation drives’ have protected them and repressed their traumatic memories too much.
significant moments which we choose to ‘share’. The urgency to create archives is also accelerated by the democratisation of image capture technologies, which, arguably, is achieved by the advent of the modern smartphone equipped with great quality cameras. This point loops us all the way back to the beginning of this chapter — the advert and all the technologies that the advert is selling. Nowadays, equipped with an ever-ready archiving device in our pockets, and urged by social media’s encouragement to ‘share’, we have all become archivers.

Time’s arrow: forwards or backwards?

One may think of the archive as a storage for things past that aids memory. And, as Derrida explains, once an archive is established, it is a never-ending process as the archiver can always add to the archive. The archive is hence “never closed” and “opens out to the future” (p68). Also, due to its ‘openness’ to the future, the archive is, in fact, concerned with the future more than with the past:

the question of the archive is not [...] a question of the past. It is not the question of a concept dealing with the past that might already be at our disposal or not at our disposal, an archivable concept of the archive. It is a question of the future, the question of the future itself, the question of a response, of a promise and of a responsibility for tomorrow. The archive: if we want to know what that will have meant, we will only know in times to come. Perhaps. Not tomorrow but in times to come, later on or perhaps never. (p36)

The archive links the past and the future, by storing the objects or images from the past, which will then be reviewed in the future. When deciding on what content is to be stored, which would then become the past at the present moment, i.e. what Derrida calls the moment of “consignation”, the archiver would have decided on the “technical structure” of the archive, which determines the rules that govern the contents of it. Also, the contents of the archive would not only have to be archivable (limited by the technical structure of the archive), but also have to be archive-worthy (predicated on the limited space of the archive, and the interest of the archiver). Hence, there is an inherent element of expectation in the process of archiving: an expectation of what might be worth having repeated viewings on in the future, an expectation of “a promise and of a responsibility for
tomorrow”. Therefore, while the purpose of the archive is for looking into the past from the future, the archive itself, with its expectation of what is archivable and archive-worthy, is always looking towards the future. Time’s arrow for the archive is always forwards.

Take the teenage boy's video as an example: before he sets off making his video, he should already have an idea of what he will be archiving, which is predicated on the technical structure of his archive (a video) and the archiving mechanism (his iPhone). He should also already have an idea of what is archivable (events that can be recorded as video), and archive-worthy (just so his video would be entertaining and not boring). Therefore, the boy creates his archive out of an expectation of what his archive will be — a video full of scenes of his family celebrating Christmas, with a couple of slow-motion shots that his archiving mechanism can afford, which will please the family when they see it.

In this way, the archive is very similar to the mechanics of statistics (which we will look at in the next chapter). In statistics, the statistician collects data from the past, or in the present (which will subsequently become the past). The collected data is for future analysis and reference. However, before collecting data, the statistician has to decide on the framework in which their statistical analysis is to be carried out, which decides what types of data is to be collected and what types of data is to be discarded. Similar to the archive, depending on the needs and interests of the statistical study, the statistician selects which data is ‘collect-able’ (quantifiable), as well as ‘collect-worthy’ (relevant to the study).

The act of archiving (and that of data collecting for statistics) is for the benefit of the future, just as the boy creates his video for his family to enjoy in the future. But how about the act of reviewing the contents of the archive (and statistics)? If we establish that the teenage boy’s video in “Misunderstood” is a form of archive, then the act of reviewing the contents of an archive should be an experience of nachträglichkeit, given that both the diegetic family and the spectator are experiencing nachträglichkeit when they watch the boy's video. What is time’s arrow for the act of reviewing the archive, and, in fact, of nachträglichkeit? One striking example of a case of nachträglichkeit should be able to shed some light on this issue. It is an anecdote which Freud found himself “in the habit” of using in order to explain the factor of nachträglichkeit “in the mechanism of psychoneuroses”:
A young man who was a great admirer of feminine beauty was talking once - so the story went- of the good-looking wet nurse who had suckled him when he was a baby: “I’m sorry,” he remarked, “that I didn’t make a better use of my opportunity.” (SE4, p204-5)

As Laplanche (1999) points out, there can be two possible ways to understand the mechanics of nachträglichkeit in the above anecdote. One way is to look from the point of view of the adult man who “retrospectively imagines all that he could have drawn erotically from that situation if only he had known” (p264) [my emphasis]. This is what Laplanche calls a “retrospective and hermeneutic interpretation”, and is in fact Jung’s zurückphantasieren (or “retrospective fantasisising”) rather than Freud’s nachträglichkeit. Unlike Freud, the view that supports zurückphantasieren does not assume that childhood sexuality exists in a hidden, ‘dormant’ state. Therefore, when the adult man sees the young child suckling the same wet nurse that he has once suckled, he is ignoring the child and the adult man’s own childhood experience, and is effectively wishing that he could reverse time’s arrow and become a child again, while bringing with him the understanding and the sexual development of an adult, i.e. something ‘if only he had known’. Meanwhile, the second way to understand the anecdote is more akin to Freud’s own conception of nachträglichkeit. Unlike the first interpretation, sexuality is assumed to be present in the child, but hidden and needs to be ‘activated’. Therefore, as the adult man sees the child suckling the wet nurse, he is ‘delayed-realising’, from a new perspective, his past experience when he was a child. In effect, the adult realises that he has “retained and preserved the traces of his own infantile sexuality” (ibid.). Time’s arrow follows the man’s journey from the initial experience (when he was a child) to a full, and delayed / deferred, realisation (when he is now an adult) of his own sexuality (which was hidden in him when he was a child). In this second interpretation, time’s arrow goes from childhood to adulthood, and, hence, is forwards. In the Jungian concept, the adult "reinterprets his past in his phantasies, which constitute so many symbolic expressions of his current problems. On this view reinterpretation is a way for the subject to escape from the present ‘demands of reality’ into an imaginary past." (Laplanche and Pontalis, 1988(1972), p112) The man encounters problems at his present and looks for a solution (or “symbolic expressions”) in his past, by means of a fantasy. Time's arrow for the man, in this case, goes backwards from the adult in the present to the child (himself) in the past. Meanwhile, the second, Freudian, interpretation sees the man locating the problem in his past (his childhood sexuality), of which he finds answers at the sight of another child doing exactly what he
did in the past. The sight of a different child doing the same thing the adult man did in the past effectively ‘activates’ the hidden and forgotten memory that the adult man has possessed the entire time (his childhood sexuality). This is the Freudian nachträglichkeit that is the ‘same but different’ process of ‘delayed realisation’.

While both nachträglichkeit and zurückphantasieren seem to describe the process of looking back, Laplanche does not think it right to assimilate the two concepts (1999, p262). In fact, even Freud himself distinguished his conceptions from other psychoanalysts’ which he called “opponents”: “I admit that this is the most delicate question in the whole domain of psychoanalysis. I did not require the contributions of Adler or Jung to induce me to consider the matter with a critical eye, and to bear in mind the possibility that what analysis puts forward as being forgotten experiences of childhood (and of an improbably early childhood) may on the contrary be based upon fantasies created on occasions occurring late in life” (SE17, p103). In the purely Freudian conception of nachträglichkeit, as Laplanche and Pontalis explain, it “is not lived experience in general that undergoes a deferred revision but, specifically, whatever it has been impossible in the first instance to incorporate fully into a meaningful context”, or, in other words, an “unassimilated experience” (1988(1972), p112). The “unassimilated experience” is the key here. In the Jungian concept of zurückphantasieren (retrospective fantasising), the “unassimilated experience” happens in the present. In the case of the adult man who makes the salacious comment about his former wet nurse, in the ‘version’ under zurückphantasieren, his “unassimilated experience” happens at the moment he makes the comment, when he fantasises being in the position of the baby in the present but cannot; he then looks back on the fact that he once was a baby himself, hence his fantasy, as with time’s arrow in this case, is backwards. However, in the ‘version’ under Freudian nachträglichkeit, the adult man acknowledges that he did not do something which he should have when he was a child (i.e. “make a better use of [my] opportunity”). It was his “unassimilated experience” (i.e. he did not make good use of his opportunity) that has led him to the present state of almost a submission to the fact that time cannot go backwards for him to be a baby again. In this ‘version’, there is no fantasy in the adult man; there is only a ‘delayed realisation’, a realisation that he once had an “opportunity” but he did not make full use of. There is an air of regret in this ‘version’.
A self-inflicting neurosis

Like the case of Emma and the Wolf Man, unfortunately this short anecdote about an adult man and his former wet nurse is also sexually charged. This, I maintain, is simply an unfortunate coincidence that the clearest case of nachträglichkeit (for Freud, at least) happens where sexuality is involved, as sexual maturity is inherently a ‘delayed realisation' in a person's growth. However, at this point, the reader should be well aware that I hope to take up the cognitivist approach of only focusing on what is presented (on screen) and avoid applying any interpretations that may be subjected to personal opinions and errors. This is why I have chosen the advert "Misunderstood" as my primary example as both the process of nachträglichkeit in the advert, as well as the content of the advert itself, is free from sexual connotation\textsuperscript{19}. So far I have established that nachträglichkeit occurs for both the spectator of the advert and the boy's family in the diegesis when they witness the same scenes but from a different perspective ('same but different'). The "unassimilated experience" for the spectator, as well as the diegetic family, lies in the first half of the advert when they do not know the boy's true intention. Then I have described the boy's video, as an archive, is created out of an expectation of its future (what will be filmed, and how the family will react). All of this culminates to what I have called the ‘third reading’ of “Misunderstood”. This third reading that I am proposing is the nachträglichkeit of the boy himself, which we have not considered.

This ‘third reading’ in fact returns to the first, which is formed during the first half of the advert. During the first half, the teenage boy is seen as being detached from his family, asocial, and only focusing on his phone. The ‘second reading’ comes from the second half where it refutes the first where the spectator, as well as the family, realises the boy in fact loves his family so much that he creates the professional-looking video for everyone to enjoy. The ‘third reading', however, asks whether the first reading was effectively refuted. The spectator may not have seen what he is looking at on the screen of his phone, which is the vital piece of information obscured from the spectator (just as The Usual Suspects

\textsuperscript{19} In the boy's video, there are a couple of shots which may invite psychosexual reading: a candid shot of his parents kissing in the car (shot from behind) and another candid shot of his grandparents kissing in their bedroom (shot through a small gap of a door that is only slightly ajar). The angle of view of these two shots may connote voyeurism, and even the ‘primal scene' fantasy. However, these shots are insignificant in the boy's video and can even be omitted while the effect of the video itself stays the same. Also, including a discussion on these two shots will undoubtedly distract from the current discussion of nachträglichkeit.
obscura ‘Keyser Söze is Verbal’ and The Sixth Sense obscura ‘Malcolm is dead’), what is shown on the screen, during the first half, is still true. The teenage boy did miss out on his family’s Christmas celebration because he was concentrating on his phone, filming and editing his video. Incidentally, in our examples of “mind game films”, their first readings (produced upon first-time viewing) are also true even though they contradict their subsequent readings (produced upon repeated viewings). In The Usual Suspects, Keyser Söze and Verbal indeed are two different people from the point of view of all of the characters except Keyser/Verbal himself (one may even argue that when Verbal pretends to be suffering from cerebral palsy, he is in fact a different person). Similarly, in The Sixth Sense, Malcolm is not dead in the points of view from both Cole and Malcolm, which are arguably the only two points of view worth noting in the film. In “Misunderstood”, I argue that by choosing to create an archive of his family holiday, the boy never experiences that particular Christmas with his family. It may be a reading produced from the first half of the advert where a vital piece of information is obscured; it is still true from all points of view. From the point of view of the spectator, which coincides with the family’s point of view as we have established earlier, the boy is detached from his family. Meanwhile, from the boy’s point of view, because he has to concentrate on filming and editing his video, he would have no choice but to acknowledge that he has not joined in his family in all their Christmas celebrations. Even though the second reading (that the boy is loving) is apparently opposite to the first reading (the boy is detached), the first reading is still true.

Furthermore, by effectively giving up on joining his family in their Christmas celebrations, creating a video of it rather than actually living it, the teenage boy has made his Christmas an "unassimilated experience". The boy’s video has no doubt provided a platform for ‘deferred realisation’ for the spectator and the family, but it also reminds him of his own "unassimilated experience". When the boy watches the video, he may think he is ‘reliving’ his Christmas, of him enjoying time with his family. This is in fact a new experience, one that he has never had, because his original experience is that of making and editing the video. While Freud’s patients had no choice in their unassimilated experiences (e.g. the cases of Emma and the Wolf Man), the tragedy here is that the boy voluntarily chooses to make his Christmas unassimilated.

In Freud, his patients describe their neuroses to him, and it was Freud’s job to analyse and lead them to recount their initial traumatic experiences that have caused the neuroses. The process of the ‘talking cure’ is known as transference. Arnold H Modell
(1996(1990) describes the process of psychoanalytic transference as creating new experiences, rather than recounting the old. He explains the mechanics of transference that is characterised by nachträglichkeit:

... the analyst or therapist becomes an unwitting collaborator in the recreation of the past, while still retaining a proximity to present time. The therapist becomes the person with whom one can reexperience trauma within a new context or experience for the first time what has been absent in the past. Affects belonging to the past that were never expressed then can now be recontextualised in current time. This is not just a simple catharsis but an actual reorganisation of memory. It is the process that provides a second chance. (p78)

Thomä and Cheshire (1991) note that Modell’s central thesis is “that psychoanalysis works by leading to a reworking and recategorisation of the patient’s memories as well as by facilitating new experiences and perceptions based on the analyst’s world view and on views creatively generated in the analytic setting.” (p413) In essence, the initial and original experience can never be relived. The original experience only works as a reference for Freud and his patient to “creatively” create a new experience so that the patient’s neurosis can be ascribed logical explanations and ultimately be cured. According to Modell, for Freud’s patients, “it is not the trauma itself that is pathogenic but how that trauma is processed retroactively”. (p78)

Just as psychoanalytic transference creates new ‘versions’ of the original and irretrievable experience, the original experience itself can also be a ‘version’ of another unassimilated original experience as well. Modell uses one of his patients as an example of this. He is the son of a Holocaust survivor. The father had told the son his own traumatic experience at the Holocaust, therefore the father’s memory had become assimilated as the son’s own. The patient’s father “had survived the Holocaust by constructing an underground bunker within the ghetto that he could share with only a limited number of people. Although the father did not express his guilt concerning the life-and-death decisions he implicitly made in excluding others, the patient experienced the father’s unexpressed guilt and internalised it as if it were his own.” The patient once heard the person on the other side of the phone said, “I didn’t get the [number] four.” This triggered the patient’s assimilated guilt from his father (who had unassimilated his own past
experience) for not saving “the four” at the Holocaust. In this way, Modell believes that “his parent’s history was inseparable from his own; and time past (his parent’s time past) was transposed into the patient’s present time.” (p79) This patient’s neurosis is one that is inadvertently inflicted by his father’s own unassimilated experience of the Holocaust. Similarly, I would argue that by making a video of his family’s Christmas celebrations, instead of living it for himself, the teenage boy has inflicted upon himself an unassimilated experience. Of course, this is far from an experience as traumatic as the Holocaust; in fact, Christmas celebration is almost the polar opposite of a traumatic experience. However, the non-traumatic nature of the Christmas celebration, contrasted with the fact that the teenage boy has created his very own unassimilated experience in a similar fashion as a neurotic patient suffers from a trauma, makes the act of archiving (the boy’s making a video) an unnecessary and self-inflicted neurosis.

In “Beyond the Pleasure Principle” (SE18), Freud talks of occasions in which there is a need for “postponement of satisfaction” (p10) when the pleasure principle needs to be overridden. Freud initially, and naturally, considers our psychic apparatus to follow the pleasure principle, which posits that a course of automatic mental events “is invariably set in motion by an unpleasurable tension, and that it takes a direction such that its final outcome coincides with a lowering of that tension - that is, with an avoidance of unpleasure or a production of pleasure.” (p7) It is a logical hypothesis in that all of our mental processes should lead towards pleasure, or the lowering of unpleasure at the very least. However, in “Formulations on the Two Principles of Mental Functioning” (SE12) and later in “Beyond the Pleasure Principle”, Freud observes that “universal experience completely contradicts any such conclusion” that our mental process simply follows the straightforward pleasure principle. Therefore, Freud explains that, in the instances

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20 See SE18, p9. Although Freud’s reasoning such as “common sense would have it that...” is most certainly unable to make any case for an argument in academic literature that requires strict and rigorous empirical research, one should assume that Freud’s “universal experience” came from multiple observations of multiple of his patients, although in subsequent paragraphs he did not immediately elaborate on such “universal experience”, he did go on to cite numerous observations, including the (in)famous “fort-da” game, to illustrate the “compulsion to repeat”, which lies “beyond” the pleasure principle because of the baby’s repeated reenacting of what is supposed to be an unfavourable experience (of the baby’s mother momentarily leaving). Furthermore, the immediate explanation that Freud offered which pointed to the “reality principle” is, I believe, ubiquitous enough in our daily lives that one could easily invoke, as it were, common sense.
where we do not simply aim for pleasure (or lowering of unpleasure), the pleasure principle could be seen as “inefficient and highly dangerous” (p10) when it conflicts with our instinct of self-preservation, at which time the pleasure principle will be replaced by what Freud called the reality principle. The reality principle “does not abandon the intention of ultimately obtaining pleasure, but it nevertheless demands and carries into effect the postponement of satisfaction, the abandonment of a number of possibilities of gaining satisfaction and the temporary toleration of unpleasure as a step on the long indirect road to pleasure.” (p10) The reality principle introduces an economy of the processes in our psychic apparatus. One would give up the possibility of obtaining an immediate pleasure, usually reluctantly due to the limits of reality. This means a temporary enduring of an unpleasure, after which, in return, eventual pleasure is hopefully gained. The eventual pleasure may be of a higher degree than one that is obtained without detouring to the reality principle. Or, when the outcome is not as expected, in that eventual pleasure is not obtained, it may lead to an illusion, an abandonment of the initial attempt to satisfaction (pleasure) and a diversion to a “substitutive satisfaction” (p11), all done via the repression of the unconscious.

The economic nature of the replacement of the pleasure principle to the reality principle (or, the “beyond” of the pleasure principle) can be recognised from everyday examples. For instance, a child has to endure a painful vaccine shot before getting a sweet afterwards (and the fact that the child will be immune from the vaccinated disease); or, an adult on a diet has to ignore their desire to over-eat before achieving their ideal weight (which signifies their satisfaction and pleasure). It may be more illustrative to understand the reality principle alongside one of the underlying principles of capitalism in that a worker gives up their time to provide labour in exchange for wage to support his living (their

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21 Freud first talked about the reality principle in detail in ‘Formulations on the Two Principles of Mental Functioning’ in SE 12
22 Also see Laplanche and Pontalis, 1988 (1972), p380. This particular route of the diversion of the pleasure principle to the reality principle will prove to be immensely fruitful as it subsequently yielded, for Freud, concepts such as repression, compulsion to repeat, reality-testing, etc.
23 The inherently Marxist problematic of whether or not the wage exchanged is proportionate to the time (and effort, etc) the worker gives up is beyond the scope here. However, it might be worth noting, for the time being, that the wage almost certainly does not equate to the eventual satisfaction in the Freudian formula of abandoning the pleasure principle in place of the reality principle. Wage is at best the intermediary to the eventual satisfaction where it is used to buy commodities. The commodities, in turn, can be said to fall into the category that Freud describes as "substitutive satisfaction" because of their materialistic nature.
The economy of the "beyond" of the pleasure principle lies in the mechanism of exchange. In "Misunderstood", the boy's normal pleasure-seeking process has gone beyond the pleasure principle, by means of exchange. He could have enjoyed himself, i.e. obtain immediate pleasure, by joining the family with the hugging, the feasting, the sledging, the snowman-building, the skating, the Christmas tree-decorating, etc., (all of which are depicted in the first half of the advert). Instead, in each and every one of these scenes the boy is looking down on his phone. Here, it can only mean one of two possibilities: the first possibility assumes the boy is keeping with the pleasure principle where he finds more pleasure out of concentrating on his phone than joining in with the family which he has evidently avoided and may well represent unpleasure for him; or, the other possibility sees the boy temporarily abandoning the pleasure principle and recourse to the reality principle, where he finds pleasure out of family gatherings but due to certain limits imposed by reality, sacrifices his immediate pleasure of family fun in exchange for a subsequent eventual pleasure. This 'eventual pleasure' is that of the family's approval and appreciation, through his making of the video. Judging by the tear-shedding, the clapping of hands and the hugging from his family, as well as the boy's smile of content at the end of the advert, he seems to have obtained his 'eventual pleasure'. However, it does beg the question: what is the 'reality' that leads the boy to abandon the pleasure principle in the first place?

In my three little examples of the reality principle taking over the pleasure principle — the child requiring a vaccine, the dieting adult, and the worker — there are clear signs of an imposing reality that forces the person to momentarily abandon their pleasure principle — the sweet (and health, which the child may not realise), the ideal weight, and the wage to support living. However, in "Misunderstood", there is no clear sign of any reality that goes against the boy's direct and immediate pleasure-seeking in joining his family in their celebrations. I have listed the two possibilities in defining the boy's pleasure above. If there is no reality that forces the boy's recourse to the reality principle, then one would have to accept the possibility where the boy finds joining in with the family's celebrations an unpleasure. If, however, there is somehow a reality that leads him to abandon the pleasure principle, then one would have to accept the other possibility where the boy is faced with a 'reality' that forces him to postpone the original pleasure that is spending time with his family. The truth of the matter is that neither one of these two possibilities bodes well for the teenage boy: the first possibility renders the boy truly unsympathetic and detached, which is the complete opposite of how the overall advert portrays him; meanwhile, the
second possibility leads to the conclusion that the boy is indeed faced with a reality that requires his postponement of pleasure. What would cause such a ‘reality’ for a teenage boy?

The ‘reality’ that causes the teenage boy to abandon the pleasure principle cannot be easily and definitively identified in simply a 90-second long advert. And it would be impossible to attempt to speculate on the relationship between the teenage boy and his family that might warrant such an existence of a ‘reality’. However, just as the teenage boy has self-inflicted his own unassimilated Christmas, I am proposing that the ‘reality’, on which his postponement of the pleasure principle is based, is also self-inflicted, or self-engendered, in that it has no logical reasons to exist. It is the same self-engendered ‘reality’ that urges every archiver today who has an advanced archiving device (their smartphones) to abandon the pleasure principle (i.e. to ‘live in the moment’) and recourse to the reality principle, which is the need to create an archive of their own unassimilated experiences. In late 2015, one image became extremely popular on the Internet and other media outlets which may sum up what I call the self-inflicted reality principle. The image (Img. 4.20) depicts a large crowd gathered outside a film premiere waiting for celebrities to come out into view. Among all members of the crowd, everybody but one elderly woman is holding their ‘archiving device’ (i.e. their smartphone), while most of them are looking at the screens of their smartphones rather than directly at the celebrities they have waited to
see. The elderly woman is not busy creating an archive of her would-be unassimilated experience but actually living the moment right there and then. She has a genuinely serene smile on her face that seems to work as the most powerful commentary of the unnecessary and self-inflicted reality principle imposed upon everyone around her. Meanwhile, before her 2014 tour, 35 years after her first and only live tour, singer Kate Bush urged her fans not to take pictures or film her performance with cameras, smartphones or tablets because she “very much want[ed] to have contact with [them] as an audience, not with iPhones, iPads or cameras.”

It would appear that with the advent and the democratisation of easy image capturing technologies, culminated in today’s smartphones, we have created unnecessary and non-existent ‘realities’ that force us to abandon the pleasure principle and to live in the true reality. Instead of living in the actual reality, we risk creating unassimilated experiences that will inevitably lead to unnecessary nachträglichkeit. Some experiences of nachträglichkeit are indeed not necessary and could have been avoided — the teenage boy did not have to be misunderstood in the first place if he just joined in with the Christmas celebrations and had fun right there and then. As shown above, nachträglichkeit does not afford the person to return to his original experience. The original experience is forever lost for time is irreversible — even if time travel is possible, going back to the past will always create the ‘same but different’ because realities inevitably change (as we have seen in the examples in Chapter 2), i.e. time travel is also inherently an experience of nachträglichkeit. By way of nachträglichkeit — whether in the form of psychoanalytic transference, a re-viewing of a video, or as actual time travel — instead of revisiting the original reality which is impossible, a new reality is created. Furthermore, our “archive fever” may even allow the new reality to pass off as the original (as is the case in the teenage boy’s experience of Christmas in “Misunderstood”). By creating archives and not living in the original experiences, it seems like many of us would like to take the blue pill, rather than the red, in The Matrix (The Wachowskis, 1999)

25 The ‘red pill/blue pill’ scene is where Morpheus (Lawrence Fishburne) introduces Neo/Thomas Anderson (Keanu Reeves) the idea and the existence of “the matrix”, a false reality of the 20th/21st century which 22nd-century intelligent machines impose upon human minds to trick them into believing they have control of their own lives. Morpheus offers Neo/Anderson a choice of two pills: the blue pill makes him forget their
Incompossible worlds

I have demonstrated three different ‘versions’ of reading the advert “Misunderstood” — (1) the boy is detached; (2) the boy is loving; and, (3) the boy may have loving intentions but ends up being detached all the same. The peculiarity here is that, while these three readings are not compatible with one another, they exist in this very same chapter describing the same advert. Earlier I cited Elsaesser’s explanation of the “mind-game films” where he uses “picture puzzles” as analogy. Elsaesser explains that “picture puzzles” can be (1) a picture in which something is hidden in plain sight; and, (2) a picture that requires the viewer to rearrange certain elements in order to reveal its other interpretation(s). I have left out his third example of “picture puzzles” — (3) “a correctly constructed image, but whose perspectival representation proves to be impossible, such as one finds in gestalt-switches or Escher’s drawings." (2009a, p40, n1) The “mind-game films” that characterise this third example of “picture puzzles” are ones that leave the cognitive spectator baffled even after they finish watching the entire film (unlike films such as The Usual Suspects and The Sixth Sense where all ‘loose ends’ are seemingly resolved). Often the cognitive spectator stays baffled even after repeated viewings because the films depict more than one reality, which are incompatible with each other. Examples include Rashomon (Akira Kurosawa, 1950), Last Year at Marienbad (Alain Resnais, 1961), Blow-Up (Michelangelo Antonioni, 1966), and Persona (Ingmar Bergman, 1966). While these films may represent the manifestation of what Deleuze (2009(1986), p201ff) has described as “the crisis of the action image”, where the Bergsonian sensorimotor schema breaks down due to the lasting effects that WWII has brought to the psyche, leading to the rise of the “time image” which these films epitomise, these films also demonstrate that the cognitivist paradigm of hypothesis-testing and cause-and-effect chain does not fully function when the films depict several incompossible worlds. In the next chapter, I shall delineate a new way of thinking about film narrative or ‘film realities’ where the cognitivist approach of cause-and-effect and hypothesis-testing breaks down. This new way of thinking relates to the third characteristic of time-travel films which I identified in Chapter 2 — the imposition of the cause-and-effect logic — and ultimately undermine it altogether.

conversation and he will wake up continue to believe in the false reality that he has taken as real; meanwhile, the red pill takes him out of the illusion of the false reality and truly ‘wakes up’ in the actual reality where humans become “batteries” for the intelligent machines in the 22nd century.

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CHAPTER 5
Statistical thinking: the logic of cause-and-effect and the logic of chance

“Harry! I insist you accompany me back to the castle immediately!”

“That would be counter-productive, sir.”

“And what makes you say that?”

“No idea.”

Prof. Slughorn and Harry,

Harry Potter and the Half-Blood Prince (David Yates, 2009)

“Unbelievable that old Biff could’ve chosen that particular date.

It could mean that that point in time inherently contains some sort of cosmic significance, almost as if it were the temporal junction point of the entire space-time continuum.

On the other hand, it could just be an amazing coincidence.”

Doc Brown

Back to the Future Part II (Robert Zemeckis, 1989)

This chapter focuses on the third characteristic of time travel films that was outlined in Chapter 2, the logic of cause-and-effect; and I shall introduce its alternative – probability and statistical thinking. This chapter is also the culmination of what has been argued so far because, as we shall see later, complex timelines and repeats can be summarised by probability and statistics. I shall be introducing the shift in our thinking from purely deterministic to increasingly statistic. This shift started from around mid-19th century and changed our thinking from a linear view of cause and effect to a dynamic take on multiple possibilities. Statistical thinking will give more insight into my previous case studies. I shall also be outlining how such thinking can be applied to cinema. Cinema not only often manifests statistical logic, but also blends it with the linear deterministic logic of cause-and-effect to create its film worlds and timelines. Thus, cinema demonstrates a thinking that is beyond the two, one that has its metaphorical and physical counterpart – the time machine.
Back to Citizen Kane

In Chapter 3 I used the canonical example of Citizen Kane as my main example to illustrate how the cognitive spectator effectively rearranges elements on the timeline of the eponymous Kane, the process of which resembles a time traveller’s journey (such as ones taken by Marty in the Back to the Future series in Chapter 2). I could have used any other example, any one that has appeared in this thesis, or even ones that have not, to illustrate the cognitive spectator’s workings of syuzhet elements into fabula construction. There is a reason I picked this particular film over many other equally illustrative examples. In one scene where Kane first meets Susan, his soon-to-be second wife, he uses his hands as shadow puppets, along with other ‘tricks’, to amuse her. She is impressed and remarks, “Gee, you know an awful lot of tricks. You are not a professional magician, are you?” Then, 32 years later, in the opening scene of the last film that he completed¹, F for Fake (Orson Welles, 1973), Welles ‘reprises’ his role of a part-time magician (or a charlatan as he calls himself) and performs a simple trick in front of two young children. He takes a key from one child and transforms it into a coin, claiming that the key is magically returned to the child. Indeed the child retrieves the key from his own pocket. He makes a remark that he is still working on being a magician, and addresses the spectator, “As for the key, it is not symbolic of anything — this isn’t that kind of movie.”

“That kind of movie” must be referring to Welles’s own film, Citizen Kane, which was his first and arguably his most celebrated film. Critic Jonathan Rosenbaum comments that, while F for Fake “is the easiest, in a way, to watch … and, this has got to be confusing to people, particularly to people who are looking for something like Citizen Kane”. For the ‘benefit’ of people who expected to find elements of Citizen Kane, a kind of quintessential Welles-ness, in what would become Welles’s final completed film, Rosenbaum describes that Welles “went out of his way to make a film in which there would be no ‘typical Welles shots’”. Rosenbaum continues and comments, “… like a magician, Welles is doing one thing with his right hand, so he can be doing something else, in the meantime, with his left hand. … This is why F for Fake is the most ideal of all of the Welles films to appear on DVD, because once you can start freeze-framing and going back and looking at something again, you discover unlimited treasures, and ways that he fools you, and ways

¹ Save for The Other Side of the Wind which would have become his last film, however, Welles could not finish the project in his lifetime.
that, sometimes, he fools you without even intending to\(^2\). This resonates with what Mulvey calls “delayed cinema” (see Introduction) that is characterised by the Freudian concept of *nachträglichkeit* (see Chapter 4): because of advancing technologies (such as the DVD, which, ironically, is already an old-fashioned form of technology at the time of writing), the cinephile can pause and rewind, essentially a process of *nachträglichkeit*, a ‘looking back’, and they will discover things that have been unnoticed before. In Chapter 4, I explained the process of *nachträglichkeit* is not one that takes the person back to the past, to the *original* experience (which would have been a ‘fantasising’, but even fantasising itself is not an *actual* going back to the past), but one that creates a *new* experience. The key, in *F for Fake*, is surely not symbolic\(^3\), unlike ‘Rosebud’ which *is* for the majority of people having watched *Citizen Kane*. In both Chapter 3 and the beginning of Chapter 4, I hinted at the possibility that ‘Rosebud’ may not mean anything at all, just as Thompson, the reporter, has to accept as his *only* possible interpretation of ‘Rosebud’. In the *original* (and only) version of *Citizen Kane*, the final reveal of the word ‘Rosebud’ printed on a burning sledge connects the dots for the first-time spectator who is trying to answer the question “What is Rosebud?” that the film has set to them via the enigmatic first scene (where Kane utters the word and dies) and Mr Rawlston, the chief editor of “News on the March” (who explicitly assigns Thompson the task of finding out the meaning of Rosebud). The depiction of the burning sledge recalls earlier scenes where young Kane is seen *with* a sledge. From here, the cognitive spectator can infer that Rosebud refers to Kane’s lost childhood, which is further symbolised by the sight of the sledge burning in a furnace. This line of thought continues when the first-time spectator becomes a *repeating* spectator when they watch *Citizen Kane* again. However, this time the relation of which shot recalling which other shot is reversed: instead of the last shot recalling the earlier scenes, in a repeated viewing, the first scene of Kane dying and muttering ‘Rosebud’ (from the second/reepeated viewing) recalls the very last shot of the burning sled (from the *previous* viewing). Similarly when Rawlston tasks Thompson to answer “What is Rosebud?” *again* (for he has already asked once in the spectator’s previous viewing), the repeating spectator is able to recall the very same burning-sled shot and answers right away that ‘Rosebud’ is the name of Kane’s sled when he was young, *symbolising* his lost childhood, his failed marriages, his lost friendship, and his tragic, lonely life.

\(^2\) “Jonathan Rosenbaum on *F for Fake*, *F for Fake* DVD extras.
\(^3\) Of course, one can argue that to claim that the key is not symbolic is itself symbolic for the lack of symbolism.
However, what if *Citizen Kane* “isn’t that kind of movie” either? What if we have misunderstood the entire film all along, like we did the teenage boy (and for multiple times too) in Chapter 4?

Rodowick (1997) believes that *Citizen Kane* makes a “convenient example” for what Deleuze calls the “crystalline image”, where the actual and the virtual are crystallised and are indistinguishable from one another, just as reality and virtuality are indistinguishable for the protagonist in *Total Recall* (1990 and 2012), to use the most concrete of examples. He explains, “Indiscernibility is the key to understanding what Deleuze means by a crystalline image. For Deleuze, the time-image is crystalline because it is multifaceted. Like an image produced in a mirror, it always has two poles: actual and virtual. ... What indiscernibility makes visible is the ceaseless fracturing or splitting of nonchronological time. In this manner, facets of the time-image crystallise around four axes — actual and virtual, real and imaginary, limpid and opaque, seed and milieu — organised as figures of indiscernibility.” (p92) Rodowick describes the dreamlike quality of the shots (especially the transition/overlapping of the snow and snow globe) in the first scene of *Citizen Kane* as “neither fantasy nor purely objective”, hence “only indiscernibility describes the logical status of these images”, as “it is unclear how it should be read.” (p93) *Citizen Kane* is clearly not as indiscernible as the “mind-game films” that portray “incompossible worlds”, such as *Rashomon* and *Last Year at Marienbad* that I mentioned in the last chapter. But perhaps this is what makes *Citizen Kane* a perfect example to illustrate the power of cinema to effortlessly, and often unknowingly, depict multiple parallel and incompossible worlds, because *Citizen Kane* may very well represent the bridge between the clearly goal-oriented movement-image and the often-incomprehensible time-image. The reason why *Citizen Kane* is not quite in the same category as *Rashomon* or *Last Year at Marienbad* in the ‘indiscernibility scale’ is simple: we clearly know what ‘Rosebud’ is whereas we can never definitively work out what actually happened in the woods in *Rashomon* and whether the man, ‘X’, and the woman, ‘A’, did meet *last year at Marienbad*. However, this little ‘problem’ of ours can easily be rectified: one simply has to remove the very last scene of *Citizen Kane*. Without the sight of a burning sled which conveniently has the word ‘Rosebud’ printed in large font, the cognitive spectator would not have enough information to link up ‘Rosebud’ (as an incomprehensible last word) to any of the symbolic meaning that they can otherwise ascribe to in the ‘original’ version of *Citizen Kane*. This is perhaps the easiest quirky ‘imaginary adaptations’ that I have conjured up
in this entire thesis: simply take out the very last scene, lasting no more than 30 seconds, and we have a *new* adaptation. But do we *really* have a *new* version this time?

Deleuze believes that *Citizen Kane* was the first time the cinema presented what he calls the *time-image*, concurring with my opinion that *Citizen Kane* represents the bridge between the *movement-image* and the *time-image* precisely because it is not *entirely* indiscernible. As Deleuze explains:

> the first occasion on which a direct time-image was seen in the cinema was not in the (even implicit) mode of the present but, on the contrary, in the form of sheets of past, with Welle’s *Citizen Kane*. Here time became out of joint and reversed its dependent relation to movement; temporality showed itself as it really was for the first time, but in the form of a coexistence of large regions to be explored.

Deleuze offers two ways of reading *Citizen Kane* that further illustrates the ‘bridge’ between discernible and indiscernible. The first one sums up what the first-time cognitive spectator does, which I detailed in Chapter 3. Deleuze explains,

> The scheme of *Citizen Kane* may appear simple: Kane being dead, witnesses who offer their recollection-images in a series of subjective flashbacks are questioned. But it is more complex than this.

This is the ‘discernible’ version of *Citizen Kane*, where the last reveal of ‘Rosebud as sledge’ conveniently and comfortably connecting all the dots for the cognitive spectator. However, the other reading of *Citizen Kane* is arguably what the film is actually about, and what makes the film one of the best, if not the best, film, in the history of cinema. This is also one that applies to my (supposed) adapted version where the very last scene is taken out. As Deleuze continues,

> The investigation is focused on ‘Rosebud’ (what is it? or what does this word mean?). And the investigator carries out soundings; each of the witnesses questioned will be equivalent to a slice of Kane’s life, a circle or sheet of virtual past, a continuum. And each time the question is: is it in this continuum, is it in this sheet, that lies the thing (the being) called
Rosebud? It is true that these regions of past have a chronological course which is that of the former presents to which they refer. But if this course can easily be upset it is precisely because in themselves, and in relation to the actual present where the quest begins (Kane dead), they are all coexistent, each containing the whole of Kane’s life in one form or another. Each has what Bergson calls “shining points”, singularities, but each collects around these points the totality of Kane or his life as a whole as a “vague nebulosity”. Of course, it is on these sheets that the witnesses will draw to evoke the recollection-images, that is, to reconstitute the former presents. But they are themselves as different from the recollection-images which actualise them as the pure past may be from the former present which it was. Each witness jumps into the past in general and at once installs himself in one or another coexisting region, before embodying certain points of the region in a recollection-image. (2009(1989), p102)

Fig. 5.1 is a graphical representation of what Deleuze describes, combining the model of time that I developed in Chapter 2 (which itself is based on Bergson, as is Deleuze’s model of cinema). This also develops from the figures I have been developing since Chapter 3. Now, instead of a single line representing both the fabula and Kane’s life (which I have purposely conflated in the previous chapters), the entire graph represents Kane’s life in which a single line representing the fabula of Citizen Kane occupying only a portion of the cone (Kane’s life in its entirety). This visually illustrates the “slices” of Kane’s life where the flashbacks of the different “witnesses” are situated, as “sheets”, quite literally. It is in this way that Deleuze asserts that “it is a mistake to think of the cinematographic image as being by nature in the present” (ibid.), because the cinematographic image, no matter how ‘simple’ the film is, is not just a single “sheet”, but the entire three- (or multi-) dimensional aggregate of “sheets” that makes up the cone. This is also “Deleuze’s time machine”, as Rodowick puts forward in his book Gilles Deleuze’s Time Machine. It is not quite an actual time machine that my initial, and outlandish, hypothesis was aiming for, but it is a “time machine” nonetheless, in that the cinematographic image offers views on all the “sheets” that make up the entire temporal structure of the film narrative and not just a single view of time as the present moment. Therefore, Citizen Kane is a kind of time machine that affords the spectator glimpses of Kane’s life, by showing them several “shining points” situated on the various “sheets” that make up Kane’s life. Crucially, now
that the entire cone represents Kane’s life and the graph itself (with its axes and the spectator’s working out of the cone themselves) represent the film, whether ‘Rosebud’ is explained or not does not affect the shape and the workings of this entire graph, in any shape or form, for ‘Rosebud’ is only one (or several) insignificant Bergsonian “shining point(s)” on the single line that I have labelled ‘fabula’, and that the presence/absence of ‘Rosebud’ does not affect the shape of this line at all.

The removing of the last ‘reveal’ scene of Citizen Kane does not, in fact, change the film, even though this may put the film in a different place on the ‘indiscernibility’ scale (from reasonably discernible because of the image of the burning sled to relatively indiscernible for the lack of the ‘reveal’ image). What this updated ('same but different') version of the graphical representation of Citizen Kane also reveals is that the logic of cause-and-effect does not constitute film narrative, or the film in its entirety. ‘Rosebud’ is the key to understanding the (supposed) relation of cause and effect in Kane’s life: because Kane’s mother wants Kane to have a better life, she swaps his ‘life with his sledge’, as it were, to life with the rich businessman Thatcher; because of Thatcher, Kane sets out to become “everything [Thatcher] hates” (as told by Kane himself when he looks back at his life retrospectively in one of the earlier scenes); because he wants to become “everything [Thatcher] hates, he manages his newspaper to be the voice that represents the people against the establishment that Thatcher epitomises; because of his
newspaper, he neglects his first wife which leads to divorce; and so on and so forth. This is one of the ways to interpret Citizen Kane. But as Deleuze states, “it is more complex than this”. Also, without the key of ‘Rosebud’ in my imagined adaptation of the film, a key that vanishes as if by magic (and remember that, after all, the key “is not symbolic of anything”), the cause-and-effect chain breaks down right from the very beginning.

**The logic of cause and effect and the logic of chance**

In Chapter 2, I identified the logic of cause and effect as the third common characteristic of time travel films. *The Time Machine* (2002) is driven by a cause-and-effect logic where there are clear reasons for Hartdegen’s time travel journeys; and, when the events unfold, they follow a strict cause-and-effect relation. The narrative of the *Back to the Future* series also follow a strict cause-and-effect logic: because of terrorist attack, Marty has to escape to 1955; because Marty has inadvertently changed the original 1955, he has to reunite his parents (*BTTF*); because Marty has bought the sports almanac, old Biff steals his idea and changes the original / ‘improved’ 1985; because 1985 is changed, Marty has to go back to 1955 once more to fix things (*BTTF*2); because Doc is inadvertently sent to 1885 where he would be killed by Buford “Mad Dog” Tannen within a week, Marty has to go back to save Doc (*BTTF*3).

In fact, it is not just a characteristic for time-travel narratives; it also represents the cognitive spectatorial process of *any* film that I have delineated in Chapter 3. The Bordwellian model of the cognitive spectator uses schemata to form a hypothesis, and throughout the course of watching the film, the spectator continuously tests out their hypothesis, amending and updating them if the narrative comprehension requires them to. The hypothesis-testing process follows a cause-and-effect chain, the example in *Rear Window* (Chapter 3) perfectly illustrates this: because the film shows a broken camera and some impressive and dangerous-looking photographs on the wall, the injured protagonist, Jeff, must be an adventurous professional photographer whose injury is caused by one of his jobs. Even my subsequent analysis of Citizen Kane in Chapter 3 seems to follow the same cause-and-effect chain. However, as my adapted version of *Citizen Kane* shows, the logic of cause-and-effect is not strictly required for film narration to function. There needs to a new kind of narrative logic for the narrative comprehension of my adapted version of *Citizen Kane*, without the key of ‘Rosebud’. This new kind of
logic may also help ascribe some discernibility back to such indiscernible films as Rashomon and Last Year at Marienbad.

This new logic is that of chance, predicated on what I will be calling 'statistical thinking'. In the late-capitalist society that we live in, numbers, quantitative data, play an integral role. As Georg Simmel, in his 1903 essay “The Metropolis and Mental Life,” explains, ‘the extreme stimulation experienced in the modern city [is] intertwined with the money economy that [underwrites] it, one that demanded a mind that was necessarily consumed with “weighing, calculating, enumerating and [with] the reduction of qualitative values to quantitative terms.” (Woodward, 1999, p184, quoting Simmel, p328) The “weighing, calculating, enumerating” and the reduction from the qualitative to the quantitative are all under the enterprise of statistics. There is no shortage of statistical figures in the news, in voting polls, in financial reports, in weather reports, in sports scores and betting odds (recall the sports almanac in BTTF2), etc. Companies use statistics to measure growth and plan on future strategies. Even the empirical nature of modern scientific experiments is predicated on data collection and statistical analysis, which is also the basis for Bordwell’s “case for cognitivism” in Film Studies (Chapter 3). In fact, we live in a world surrounded by statistics, which, as I shall discuss in more detail below, is the best way we have yet of taming random chance.

In the realm of scientific research, financial markets, news-reporting and policy-making, the logic of chance (in numbers and statistics) have completely replaced the deterministic logic of cause-and-effect. However, in our daily lives, we tend to conflate the two logics. David L Krantz (1998) has observed a peculiar case of oscillating between the logic of cause-and-effect and the logic of chance in our “everyday narratives”. He cites one research by Brickman, Coates, and Janoff-Bulman (1978).

It was found that accident victims seldom described their misfortune in chance terms although it was clearly an operative factor (based on alternative reports). Rather, they searched for good reasons to understand their experience. Almost all asked “why me” and only a small number felt that they deserved what happened to them. In marked contrast to such obscuring of chance by causal explanations was its dramatic acceptance by lottery winners. These fortunate individuals
embraced chance, neither questioning “why me” or the bases of their good fortune. (Krantz, p88)

In this research, the accident victims and the lottery winners are two different groups of people. Krantz finds this methodology inconsistent, so he further investigates these findings in his own research, in which he asks a group of lottery winners “to reflect on their good fortune as well as on negative life events”. One of his respondents says, “There has to be some good reason. Maybe it’s God’s will or something we don’t know about yet. But there must be some justification. It there weren’t, life would be senseless. And I don’t consider blaming chance a good enough reason for why someone gets sick.”(ibid.)

Krantz finds out that despite knowing that lotteries are based on chance, people tend to adhere to the logic of cause-and-effect. In some cases, using the logic of cause-and-effect to explain something that is purely based on chance results in superstitious beliefs. More importantly, Krantz concludes that it is not because of stupidity that ordinary people conflate the two logics in their everyday narratives; he believes that the reason lies in the nature of narrative itself — it must be exciting or interesting enough to be able to count as a narrative, something that one can recount. According to Krantz, people only tend to recount accidents or lottery winning, but not ordinary events where nothing exciting or notable happens. This finding can also be applied to film narrative. One can easily imagine that no ordinary cinemagoer would be interested in going to see films where Tom Hanks sends no email (You’ve Got Mail, Nora Ephron, 1998), has a safe courier flight (Cast Away, Robert Zemeckis, 2000), is a foreigner who smoothly goes through US immigration (The Terminal, Steven Spielberg, 2004), or captains a ship that never gets hijacked (Captain Phillips, Paul Greengrass, 2013). This is not only another exercise of my self-indulgent imaginary film adaptations, or an overview of Tom Hanks’s career, but is also to show that most conventional narrative cinema is predicated on narratives that contain events which deviate from the everyday and normal. For this to happen, a chance event (such as meeting someone in a chatroom, having a plane crash, etc.) has to be ascribed a logic of cause-and-effect. Then, the cognitive spectator, accordingly, proceeds to make hypotheses and to solve ‘puzzles’ to enjoy these narratives. Of course, film narrative does not require the logic of cause-and-effect to function, as demonstrated by films such as Rashomon and Last Year at Marienbad (or my adapted version of Citizen Kane, for that matter), which are more suited to the logic of chance (as we shall see later). In fact, film does not even need narrative at all to function: Kiarostami’s Five (Dedicated to Ozu)
(2003) is perhaps the perfect antithesis to the belief that film requires narrative\(^4\) which, in turn, requires the logic of cause-and-effect. However, these are usually considered ‘art cinema’, or ‘alternative cinema’.

While this just proves the importance of the logic of cause-and-effect in narrative cinema, it also proves that cinema is an arena where the logic of chance can coexist with the logic of cause-and-effect. The following will be an overview of the historical development of the rise of statistical thinking that fascinates the logic of chance. Then, I shall come back to some film examples to illustrate how the two logics coexist in more detail.

**The rise of statistical thinking**

Ian Hacking’s *The Taming of Chance* (1990) details the fall of deterministic thinking (cause and effect) and the rise of what Theodore M. Porter (1986) calls “statistical thinking”. As we shall see later, statistical thinking, unlike deterministic thinking, embraces chance and randomness. Hacking is one of the leading scholars who has led the “advance in the appreciation and understanding of statistical thinking and its place in the development of modern thought” (Porter, 1986, p.xi); his historical research on the development of statistics and statistical thinking is extremely thorough and useful for our subsequent discussions. According to Hacking, throughout the Age of Reason in the 17th and 18th centuries, chance was considered “vulgar”. “Chance, superstition, vulgar, unreason were of one piece. The rational man, averting his eyes from such things, could cover chaos with a veil of inexorable laws. The world, it was said, might often look haphazard, but only because we do not know the inevitable workings of its inner springs.” (p1) The mathematical discipline of *probabilities*, or “the doctrine of chances,” came into existence long before this time, around 1660, but it had been considered “merely the defective but necessary tools” (ibid.) for people who did not understand the “workings of the inner springs”. On the other hand, according to Ian Hacking, there were plenty of people “who needed room for freedom of the will, or ... insisted on the individual character of organic and living processes”, i.e. sceptical about determinism. As a result,

\(^4\) Films by Andy Warhol such as *Sleep* (1963) and *Empire* (1964) may be ‘better’ examples as they were much earlier. However, Warhol’s works verge on being ‘art installation’, whereas *Five* still retains a certain cinematic quality to it (perhaps “dedicated to Ozu” provides hints to this).
measurements and the collection of data had increasingly become standard practice in scientific experiments as well as societal understanding. Hacking even goes so far as to say that probability is “the philosophical success story of the first half of the twentieth century.” (p4) In epistemology, determinism is in effect an old-fashioned concept and the concepts of chance, or “statistical thinking”, have very much been ‘on trend’. This “erosion of determinism”, as Hacking puts it, or “the rise of statistical thinking” as T. M. Porter puts it, makes it possible to see the world as being “regular and yet not subject to universal laws of nature” (p1).

At the start of what Hacking calls the “erosion of determinism”, people began collecting data but did not do much with interpreting, or analysing, them. It was Adolphe Quetelet in around 1844 who made the leap towards proper ‘statistical thinking’ in the analysis of data, with the use of the now ubiquitous normal distribution curve (Fig. 5.2), also known as binominal distribution, Gaussian distribution, ‘curve of error’, or more colloquially and self-explanatorily, the “bell-shaped curve”. The curve, taking the shape of a bell, stipulates that the highest point in the middle of the curve is the mean (or average) and therefore has the highest frequency or highest probability. Then nearer to either end of the curve, the value has an increasingly lower frequency or probability. Data that conform to a normal distribution curve is said to be normally distributed. Quetelet first noticed the startling conformity to a perfectly bell-shaped curve in crime numbers. Upon this discovery, he even went so far as to claim that “we know in advance how many individuals will dirty their hands with the blood of others, how many will be forgers, how many poisoners, nearly as well as one can enumerate in advance the births and deaths that must take place” (Hacking, p105; quoting Quetelet, 1829, p35). Meanwhile, the ‘bell-shaped curve’ itself was discovered as early as 1708 by Abraham de Moivre from gathering data of coin-
tossing. Since then, one of its earlier prominent uses was found in astronomy, where the measurements made by astronomers were assumed to conform to the distribution of errors defined by the mean and the dispersion. But it was Quetelet who discovered the curve’s affinity with biological and social behaviour. He pioneered in quantifying biological and social data to fit in the ‘bell-shaped curve’. Hence he understood human characteristics by means of quantifiable statistical averages, and he created what is known as l’homme type, or, “the average man”, or the typical man.

The “average man” does not actually exist, just as no person on earth has exactly ‘2.2 children’. The average man⁵ is a representation of characteristics of a particular group of people, or a race. Quetelet introduced a new perspective to look at a people and hence new possibilities for eugenics, social policies and control. The bell-shaped curve can even be applied in the reverse direction. Not only can the curve be established after the collection of data, it can also be used for the verification of data before the collection: if the data collected do not conform to the curve, it can be said that the data do not come from the same group (Hacking, p106-110). As a result, deterministic thinking, with its strict cause-and-effect, ‘law-like’ relations, was being abolished. The concepts of chance and probability were gaining more acceptance. A new kind of law — statistical law — is slowly being acknowledged.

With statistics, essentially all human characteristics and social behaviour can be summarised by the bell-shaped curve. However, as François Jacob (1973) points out, “one of the characteristics of the statistical method is that it deliberately and systematically ignores details” (p200). When statistics summarises a bulk of individual data, small factors are ‘smoothened out’ in favour of creating the bigger picture, as it were, which is the bell-shaped curve itself. The irony is that the purpose of the ‘bigger picture’ is to show natural patterns, or “the natural tendency of things to pass from order to disorder, through the effect of calculable chance” (ibid.), but natural patterns that are not ‘natural enough’ are being discarded, or considered anomalies, in statistics.

Statistical law, in itself, is a mixture of contradictory terms: it is the inexplicable chaos being explicably tamed. Statistical law brings together two incompatible concepts together: order and chaos. Also, another crucial point to note is that it “does not aim to

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⁵ The ‘man’ in ‘the average man’ does not limit the concept to just the male sex. The use of the word ‘man’ in the 19th century was rather different than it is today.
give a causal explanation of events; it does not say why they occur, but how.’ (ibid.) However, an underlying question still lurks around the corner: having explained the “how” in the manifestation of the bell-shaped curve, how does one explain the “why”? As Hacking points out, there is a difference between autonomy and irreducibility. “Statistical laws became autonomous when they could be used not only for the prediction of phenomena but also for their explanation. [...] An event may be very probable, or be of a type that happens very frequently, but does that explain its occurrence on a particular occasion?” (Hacking, p182)

Charles Sanders Peirce’s experiment in 1884 (Hacking, p204ff)\(^6\) is one example that shows that statistical law often, not only can explain the “how”, but also the “why” as well, rendering it irreducible and autonomous. Peirce’s experiment was to determine the validity of an assertion that experimental psychologist Gustav Fechner made in the 1850s. Fechner asserted that there was a threshold below which a human cannot differentiate minute differences, e.g. weight difference between two small objects of almost identical (‘same but different’) weight, and that the bell-shaped Normal Distribution curve does not apply in such situations. What Peirce did was to arrange an experiment where “elaborate devices” were put in place to make sure all the variables are as randomised as possible, then “blind” subjects were forced to determine which of the pair of objects of almost-identical weight presented to them were heavier. What is interesting about Peirce’s experiment is that even if the subjects did not know for sure, they were forced to give out definitive answers. What he found was that the subjects’ (sometimes intuitive) answers conform to the bell-shaped curve as well, refuting Fechner’s assertion of an existence of ‘thresholds’ in human senses.

In Peirce’s experiment, ‘control’ (or ‘control experiment’)\(^7\) was done alongside the actual experiment to ensure random factors can be eliminated so that only the variable(s) under observation were to be isolated and analysed. However, Hacking notes that


\(^7\) A ‘control experiment’ is one that is almost identical to the actual experiment, except for one crucial detail: the variable to be experimented. While the actual experiment is set up to find out the properties of the variable, the ‘control’ makes the variable as a constant, so that, when compared against the actual experiment, other unwanted variables can be eliminated.
Perice’s ‘control’ was done “not by getting rid of chance fluctuations, but by adding some more” (p205). Peirce intended the result of his experiment to be hinting at the existence of some previously unknown human sensation that could tell the difference in even most minute of weight differences, hence the ‘why’ of the bell-shaped curve. However, because his controlled experiment turned out to be randomised, in the end, Peirce inadvertently used randomness in his attempt to explain randomness itself. In this sense, statistical law is autonomous as well as irreducible to the ‘why’, or the “underlying causal and determinist structures” (p182). A toss of a coin may be predicted by statistics and probability, but it cannot explain why the coin lands on heads when it does. To explain why the coin lands on heads, one can exhaustively look for minute variable details such as how much force is exerted on the flipping of the coin, its torsional moment of inertia, the air density, and every other element that may, or may not, be remotely related to the coin toss. In a way, chance is merely the summation of all these variables. And, the mean of the “bell-shaped curve” does not tell the whole story of the variables. Francis Galton, who was hugely interested in eugenics and heredity (culminated in his book *Hereditary Genius* (1869)), learnt from Quetelet, and believed that the bell-shaped curve provided a way to think about deviation. Galton explained:

> First, let me point out a fact which Quetelet and all writers who have followed in his path have unaccountably overlooked [...] It is that, although characteristics of plants and animals conform to the [statistical] law, the reason for their doing so is totally unexplained. The essence of the law is that differences should be wholly due to the collective actions of a host of petty influences in various combinations.

> Now the processes of heredity are not petty influences, but very important ones ... The conclusion is that the processes of heredity must work harmoniously with the law of deviation, and be themselves in some sense conformable to it. (Galton, 1877, p512, quoted in Hacking, p184-185)

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Galton believes that the deviation is just as important, if not more important than, the mean on the bell-shaped curve, and that the deviation should not be construed as ‘error’ (as in ‘curve of error’). Quetelet may have quantified human characteristics such as eye colour and diseases, any deviation that manifests on the curve is in fact natural; hence Galton thinks that “the term Probable Error is absurd.” (Hacking, p113) Whereas Quetelet focused more on the central tendency of the bell-shaped curve, Galton was more interested in the deviations of the curve, i.e. the ‘tails’ of the curve. He understood statistical law as a “law of deviation” (p185). Galton, like Quetelet and many other modern ‘statistical thinkers’, truly believed that statistical law, while not being a unified ‘law of everything’ (recall the Grand Theory in Chapter 3), can explain the cosmic order of the world:

I know of scarcely anything so apt to impress the imagination as the wonderful form of cosmic order expressed by ‘the law of error.’ A savage, if he could understand it, would worship it as a god. It reigns with severity in complete self-effacement amidst the wildest confusion. The huger the mob and the greater the anarchy the more perfect is its sway. Let a large sample of chaotic elements be taken and marshalled in order of their magnitudes, and then, however wildly irregular they appeared, an unexpected and most beautiful form of regularity proves to have been present all along. (Galton, 1886, p494, quoted from Hacking, p186) [my emphasis]

In Galton’s analogy of god-worshipping by a “savage”, we can see the tension between the older deterministic thinking and the modern statistical thinking: the other tension is between order and chaos within statistical thinking (manifested in the unexpected yet regular nature of the universe). Deterministic views are based on the belief that we have essentially no control on the cause-and-effect chain, and chance is only resulted from a number of often unknown and unseen “petty influences” along the cause-and-effect chain. Statistical thinking, however, believes that chance, rather than being exactly predictable, can be tamed. To resolve the conflict between causality and chance, Karl Pearson suggests the concept of correlation. Pearson points out that it was Galton who first grasped this concept in understanding quantitative analysis. As Pearson explains correlation:
Galton turning over two different problems in his mind reached the conception of correlation: A is not the sole cause of B, but it contributes to the production of B; there may be other, many or few, causes at work, some of which we do not know and may never know...

This measure of partial causation was the germ of the broad category - that of correlation, which was to replace not only in the minds of many of us the old category of causation, but deeply to influence our outlook on the universe. The conception of causation - unlimitedly profitable to the physicist - began to crumble to pieces. In no case was B simply and wholly caused by A, nor indeed by C, D, E and F as well!

It was really possible to go on increasing the number of contributory causes until they might involve all the factors of the universe...

Henceforward the philosophical view of the universe was to be that of a correlated system of variates, approaching but by no means reaching perfect correlation, i.e. absolute causality. (Pearson, 1930, p1-2)

If we recall *The Time Machine* (2002), Hartdegen blames almost everybody remotely involved in the death of his fiancée: the engagement ring for being too appealing for the mugger/murderer, Mrs Watchitt for picking up the ring from the jeweller, the jeweller for selling it to her, the worker for his extracting the particular piece of stone, etc. The logic of cause-and-effect can go on *endlessly*. While the above chain of events is technically true in its leading up to Emma’s death, it does not help explain *anything* in the end. Also, if we recall Chapter 1 where Gunning refutes the idea of an ‘evolution’ of cinema from the “cinema of attractions” to the “cinema of narrative integration”. I remarked that the use of the term ‘evolution’ might have been a slight error because it does not connote a strict and linear cause-and-effect chain of development, which is what Gunning is refuting.

Evolution describes correlation which may or may not involve a strictly linear cause-and-effect relation. Therefore, in the case of cinema, it did, to a certain extent, *evolve* from simply being the “cinema of attraction” to branching out to include narrative cinema, even though the two most certainly did not share a cause-and-effect relation, which also represents Gunning’s central argument.

By understanding the concept of correlation, one acknowledges that there is no such thing as *absolute causality*, or *absolute determinism*. Cause A and Effect B certainly has
a relation; however, it is not an exclusive one. And if causality is to be taken to the extreme (and it can only be taken to the extreme, otherwise it makes no sense for a partial causality as a deterministic explanation), all the factors of the universe will inevitably have to be considered, simply because of the potentially endless nature of tracing causality. Statistical law succeeds in bypassing, or surpassing, the metaphysical difficulty of causality because it never tries to be absolute in the first place. Here, the relationship between deterministic thinking and statistical thinking is reminiscent of the dichotomy between Grand Theory and Post Theory that we have discussed in Chapter 3. Statistical law does not completely refute the existence of cause-and-effect relation; it is merely suggesting that a linear cause-and-effect is not the only explanation, because a multidimensional logic of correlation is more suitable. Similarly, by juxtaposing psychoanalysis of the Grand Theory with a Post-Theory approach of cognitivism, I am fully acknowledging the usefulness and the appropriateness of psychoanalytic thought (as demonstrated in Chapter 4), whilst laying it down on a cognitivist framework that does not set out to be an all-encompassing ‘theory of everything’, as is the case of statistical thinking.

The study of gas and the law of thermodynamics

The study of gases in the nineteenth century proved to be a huge leap in science with the help of statistical thinking. Although individual free-moving gas molecules have different speeds due to their random collisions, it would be impractical and impossible to observe individual molecules. Since the aim was to investigate properties of a gas, the whole population of gas molecules could be treated as one under statistical thinking. By assuming that the gas consists of nothing but “ideal molecules” (similar to “the average man”), all of which travel at the same speed defined by the average taken from the bell-shaped curve, relations between different properties of the gas, such as pressure, temperature and density, can be established by scientists such as Daniel Bernoulli, James Prescott Joule and Rudolf Clausius (Jacob, p195). According to Jacob, “large numbers are studied not so much because it is impossible to investigate the individual units, but mainly because their behaviour is of no interest at all” (p196), just as the individual causes in a cause-and-effect chain (e.g. in Hartdegen’s endless line of blame in The Time Machine (2002)) does not yield any useful or constructive results at all. Since the property of the whole gas is under investigation, statistical thinking can effectively bypass the small details and concentrate on the ‘bigger picture’. Thus, statistical thinking helps understand properties of a whole mass without understanding the individuals.
It is this kind of statistical thinking that helped advance the study of thermodynamics. Statistical thermodynamics is said to be the “origin of a reconceptualisation of physics that shifted the emphasis from deterministic, reversible processes to stochastic, irreversible, and the statistically describable ones.” (Doane, 2002, p122)\(^9\) At first glance the laws of thermodynamics\(^{10}\) may appear to be contradictory to one another, but they can be resolved under statistical logic. The first law of thermodynamics, the law of conservation of energy, states that, in a closed system, energy can neither be created nor destroyed and is invariably conserved, while its form can change (e.g. to heat or to potential energy). However, the second law, or the “law of entropy”, states that “in an isolated system energy tends to be degraded and therefore the entropy tends to increase: in the end, motion ceases, differences of electrical or chemical potential are annulled and temperature becomes uniform.” (Jacob, 1973, p194) In other words, according to the second law of thermodynamics, energy will dissipate, which appears to be contradictory to the non-destruction stated by the first law. However, while the first law refers to the quantity of energy, the second law refers to the quality. Usually when work\(^{11}\) is done, energy is dissipated as heat. Energy is not destroyed (quantitatively) but its form is changed (qualitatively). The heat becomes an unusable form of energy because it is balanced out by the surrounding molecules which are less hot. It results in an equilibrium where the overall temperature of the mixture of molecules of different temperatures is brought to the average. Although the energy is not lost (according to the first law of thermodynamics), it cannot be reused to produce work (the law of entropy). Crucially, the characteristic of warmer molecules flowing towards areas of cooler molecules is not of a deterministic, cause-and-effect relation: it is only a matter of chance. Cooler molecules can indeed flow towards warmer areas, but it is, statistically, a much less probable outcome than the other direction of travel. Under statistical thinking, in the vast majority of cases, the most probable outcome becomes the actual result. Whenever there is a difference in heat,

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\(^9\) Citing Prigogine and Stengers, 1984, p232. The original quote concerns quantum mechanics, of which thermodynamics is one of the most basic forms. Also, the original quote reads: “We have repeatedly stated in this book that the reconceptualisation of physics going on today leads from deterministic, reversible processes to stochastic and irreversible ones. We believe that quantum mechanics occupies a kind of intermediate position in this process. There probability appears, but not irreversibility.” [my emphasis] Prigogine and Stengers’s more scientifically focused study reveals that statistical thinking can be tied to reversibility in time in some cases.

\(^10\) There are four laws of thermodynamics. The ‘zeroth’ and the third are missing in my description. Although they both concern equilibrium and entropy, they are irrelevant to the current discussion.

\(^11\) ‘Work’ is the scientific term to describe the using and transferring of energy.
warmer molecules will (most likely) flow towards areas of cooler molecules, until there is no more difference in temperatures in all areas occupied by all the molecules. When the temperature of the overall gas (or liquid) becomes stable, the system is at maximum entropy and in a state of equilibrium.

Because of its ability to project what outcome will be the most probable, statistics can, to a certain extent, predict future events. As Jacob puts it, the future that statistics can predict is “not with certainty, but with a probability that very often amount[s] to certainty” (p200). Statistical thinking also asserts a sense of temporal direction in the progress of events. This direction is one that goes from order to randomness, and then to (new) order again. The order-randomness-(new) order sequence recalls the similar A-B-A’ structure (which also describes the classic narrative structure of equilibrium-disequilibrium-new equilibrium) in the three interpretations of “Misunderstood” in Chapter 4, one could find parallels between the process of nachträglichkeit and the progression of events under statistical logic (such as thermodynamics). In “Misunderstood”, the third interpretation where the boy ends up being detached from his family is not the same as the first interpretation that misunderstands the boy for being detached, despite them looking similar at first glance. The third interpretation is arrived only after two ‘rounds’ of nachträglichkeit, having arrived at the first interpretation and subsequently the second in which the boy is thought to be loving and considerate. Similarly, in thermodynamics, if we take mixing two gases of different temperatures as an example, we shall see a similar pattern of development. First, the two separate gases are in a state of order because neither of them is disturbed yet. Then, when the two gases are mixed, different molecules of different temperatures collide with one another in a random manner; however, molecules of the warmer gas (more likely) flows towards cooler molecules from the other gas. Finally, as warmer and cooler molecules are evenly distributed in the mixture, a state of equilibrium is achieved; a new order is thus established. This new order is evidently not the same as the initial order because while the latter is a mixture of two gases, the former is two separate gases. At this point, one important thing to note is that this process cannot be reversed: once equilibrium is achieved, the warmer molecules and the cooler ones cannot separate back into their original respective groups again, as that would mean a decrease in entropy, which, according to the “law of entropy”, is impossible. In other words, once a warm gas is mixed with a cool gas and equilibrium is achieved, one cannot attempt to separate the mixture back into individual warm and cool gases. The process, order-randomness-(new)order, is irreversible. In mixing two gases, time’s arrow works in
a single, forward-only, direction. Recall our discussion of nachträglichkeit in Chapter 4 where Freud's own interpretation of the concept is that its time's arrow also goes in a forward-only direction, which, in turn, is not to be confused with the Jungian notion of retrospection that suggests a backwards time's arrow in the subject's fantasising about the past.

It is worth noting that irreversibility also applies to nachträglichkeit in narrative comprehension because new interpretations cannot be unseen. Once the spectator knows Verbal is Keyser Söze (The Usual Suspects), or Malcolm is dead all along (The Sixth Sense), any subsequent viewings of these films can never return to the 'original state' where 'Verbal' and 'Keyser', or 'Malcolm' and 'ghost', are pairs of separate entities, just as the two separate gases are before being mixed.

Following the "law of entropy" which describes the irreversibility in, statistical thinking demands that time’s arrow is forwards-only and never reversible, unlike traditional Newtonian physics where only the quantity of time, and not its direction, is taken into account. Darwin’s theory of evolution is also derived from statistical thinking. In evolution, the natural selection process is a forwards and irreversible one. A group of organisms cannot return to its former, unevolved state, simply because evolution is based on the natural development of the organism's habitat; even if, for some reason, the habitat progresses into a state that resembles its previous state, it is still a progression and not retrogression. For Jacob, "the analogy between the theory of evolution and statistical mechanics extends to include the notion of the irreversibility of time" (p197). Meanwhile Mary Anne Doane pushes this link further to find affinity between statistical logic (in the form of the laws of thermodynamics) and cinematic time.

To the extent that statistics deals in probabilities, it engages the future. Thermodynamics, in effect, makes that future quite predictable; it is one of increasing entropy and hence randomness: “Time is linked by thermodynamics to ideas about organisation and randomness. The flow of time becomes apparent because there is an inexorable tendency in any system left to its own devices for organisation to diminish and randomness to increase.”¹² Such irreversibility is not observable in the individual

molecule but only at the level of the aggregate, the masses. Film has become the privileged illustration of irreversibility in so many physics textbooks because its history in its mainstream forms so readily allies it with referentiality, realism, and an associated idea of “common sense,” or the probably/plausible (avant-garde films such as Paul Sharits’ *Ray Gun Virus* or Tony Conrad’s *The Flicker* are eminently reversible). The strangeness or disbelief experienced when one is confronted with images of a man walking backward or a diver jumping backward out of the water onto a pier acts as a guarantee of the ultimate reality of irreversibility. The film, driven by a machine, moves inexorably forward, demonstrating the inevitable nature of irreversibility. (p131)

Therefore, according to Doane, precisely because film *can* show movement going backwards, and the fact that the spectator feels “strangeness or disbelief” whilst watching such backwards movement, film becomes the conclusive proof that time is indeed irreversible. She then goes on to use statistical logic to consider film narrative.

It is not narrative irreversibility, although it is arguable that narrative as a temporal form tends, overall, to corroborate the directionality, linearity, and hence irreversibility of time. Yet film narrative can and does depend upon the temporal aberrations of memories and projections, incarnated in flashbacks, flashforwards, and radical ellipses. Each of these, however, depends upon the cut, which allows the disarticulation of filmic time and profilmic time. […] Within the unit of time covered by the flashback, time is irreversible; the linear “forward” nature of movement is acknowledged and honoured. This basic commitment to the irreversibility of movement subtends and supports all the various experimentations with narrative temporality that punctuate the history of cinema. It is this basic commitment which impresses the spectator with the inexorably forward movement of film, with the “truth” of irreversibility. (ibid.)

In a footnote, Doane uses *Memento* (Christopher Nolan, 2000) as an example of how the narrative reversibility and reversible movement, possible only in film, go hand in hand to acknowledge that time is indeed irreversible (p252, n49). She argues that *actual* reverse movement only happens in the very first scene of *Memento*, where blood is seen flowing
back into the body and the bullet flying backwards into the gun. This reverse movement is not sustained throughout the entire film but only manifests in a reverse of narrative sequence (in the colour sequences), hence the film unfolds “in the tradition of the detective story”, which, in the end, is “supported by a basic irreversibility of movement” in time. Then a question arises: if a ‘version’ of Memento (yet another one of my imaginary film adaptations) is re-edited in such a way that all of its original sequences are played in reverse and characters are constantly seen as movement backwards, does it at least constitute a possible glimpse that movement in time and space can be reversed? The answer to this question would be a resounding no, because such a ‘version’ of Memento would be so odd to the cognitive spectator (in similar fashion as Douglas Gordon’s 24 Hour Psycho would) that the “strangeness” itself is an acknowledgement of the inevitable irreversibility of time. At this point, perhaps the time machine is nothing but an unattainable fantasy.

Maxwell’s Demon

The laws of thermodynamics, based on statistical thinking, dictate that once two gases of different temperatures are mixed, and equilibrium is achieved, there is no turning back. This is also the basis on which Doane argues that film’s ability to show backwards motion (or pause, or fast-forward, or any other cinematic/videographic technique) paradoxically cements the irrefutable fact that time is irreversible. However, is there a way that the logic of statistics can be ‘twisted’, as it were, and thought of in reverse? In A Philosophical Essay on Probabilities (1902), Laplace offered a potential solution that may reconcile the logic of cause-and-effect (deterministic thinking) and the logic of chance (statistical thinking). Laplace wrote it as a “development of a lecture on probabilities which [he] delivered in 1795”, which was the time when the doctrine of probability only started slowly penetrated through intellectual reasoning, but, of course, way before ‘the rise of statistical thinking’. Laplace believed that “present events are connected with preceding ones by a tie based upon the evident principle that a thing cannot occur without a cause which produces it.” (p3) This may seem like adherence to a strict logic of cause-and-effect. But Laplace was, after all, giving lectures on probability and not on causality. Also, for him “the most important questions of life […] are indeed for the most part only problems of probability” (p1) It is a peculiar mix of both the logic of cause-and-effect and of chance. Despite the ‘rise of statistical thinking’ only happening in the second half of the 19th
century, Laplace, writing in the 18th century, showed glimpses of his extreme foreword-thinking-ness.

We ought [...] to regard the present state of the universe as the effect of its anterior state and as the cause of the one which is to follow. Given for one instant an intelligence which could comprehend all the forces by which nature is animated and the respective situation of the beings who compose it — an intelligence sufficiently vast to submit these data to analysis — it would embrace in the same formula the movements of the greatest bodies of the universe and those of the lightest atom; for it, nothing would be uncertain and the future, as the past, would be present to its eyes. The human mind offers, in the perfection which it has been able to give to astronomy, a feeble idea of this intelligence. Its discoveries in mechanics and geometry, added to that of universal gravity, have enabled it to comprehend in the same analytical expressions the past and future states of the system of the world. Applying the same method to some other objects of its knowledge, it has succeeded in referring to general laws observed phenomena and in foreseeing those which given circumstances ought to produce. All these efforts in the search for truth tend to lead it back continually to the vast intelligence which we have just mentioned, but from which it will always remain infinitely removed. This tendency, peculiar to the human race, is that which renders it superior to animals; and their progress in this respect distinguishes nations and ages and constitutes their true glory.

(Laplace, 1902, p4-5)

Laplace believed that there is a “vast intelligence”, which is symbolic to the actual causes to every phenomenon. However, even though human intelligence is capable of working out complex ideas such as mechanics (it would have been Newtonian rather than quantum in Laplace’s time) and geometry, it is not capable enough to comprehend such a “vast intelligence”. But despite not being able to locate the true causes of many inexplicable phenomena, the human intelligence has resorted to the doctrine of probability, of collecting data as statistics, to locate a pattern which affords it some degree of knowledge in the unknowable future, which the “vast intelligence” is fully aware of. Probability, and statistical thinking, then becomes a compromise between human
intelligence (that is clever enough to notice the patterns of nature) and human ignorance (the lack of capacity to comprehend the “vast intelligence”).

In fact, Laplace’s view coincides with my own views on a couple of topics that I have covered in this thesis. First of all, Laplace’s “vast intelligence” is too reminiscent of a four-dimensional being in our three-dimensional world. In Chapter 2, borrowing Edwin A Abbott’s short story “Flatland”, I scaled down the dimensionality and discussed how two-dimensional beings would view three-dimensional ones. Two-dimensional beings will only ever be able to view three-dimensional beings as two-dimensional; therefore, not their entirety. My thesis for this scaled-down model is that time is the four-dimensional being / thing that we three-dimensional beings cannot fully understand, even if we know full well of its existence. Similarly, imagine Laplace’s “vast intelligence” as four-dimensional beings who can see cause-and-effect chains in events that we humans can only theorise by means of statistics and probability, this could reconcile the two often incompatible logics — deterministic thinking and statistical thinking. Meanwhile, in Chapter 3, I positioned Bordwell’s work as a reaction against the Grand Theory, whose ambitions are to be all-encompassing, solving all problems. Laplace’s hypothesising of the existence of a “vast intelligence” is in fact such all-encompassing theorising. In Chapter 4, I attempt to ‘salvage’ the relevance of psychoanalysis in Film Studies by locating the origins of Freudian psychoanalysis itself, in nachträglichkeit and in memory. This is an attempt to reconcile the two often antagonistic ways of theorising — (Grand) Theory and Post Theory. Here, as we shall see, Laplace’s view on probability and cause-and-effect relations can result in a reconciliation of the two incompatible logics, the logic of cause-and-effect (deterministic thinking) and the logic of chance (statistical thinking).

Laplace’s “vast intelligence” finds its ‘spokesman’ in James Clerk Maxwell. In 1871, Maxwell created a prosopopoeia that represents the “vast intelligence” in the Laplacian universe. Doane, following William Thomson, calls it “Maxwell’s demon” (p123), even though Maxwell himself did not like the nomenclature, as he insisted that this figure (Maxwell’s demon) has no supernatural connotations whatsoever (Doane, p251, n31).

“Maxwell’s demon” is an imagined being whose brain and senses are far superior to ours. Its faculties “are so sharpened that he can follow every molecule in its course; such a being, whose attributes are still as essentially finite as our own, would be able to do what is at present impossible to us” (Maxwell, 1891, p338, quoted from Jacob, p195). If
we recall the example of mixing warm and cool gases, Maxwell’s demon can see the movement of each individual gas molecule. It can deploy a “sliding door”, or a valve, to create two separate compartments in the gas chamber. By regulating the opening and closing of the valve according to the movement of individual gas molecules which Maxwell’s demon can clearly see, it can then isolate the warmer and cooler molecules, hence nullifying the second of law of thermodynamics (by reestablishing temperature difference, converting unusable energy back into usable form). Maxwell’s demon can defy statistical law.

The idea of Maxwell’s demon does not denounce statistical thinking, because Maxwell’s demon is not human and statistical thinking can still apply to humans, without the incredible senses and faculties of Maxwell’s Demon. Rather, it reestablishes deterministic thinking in such a way that the two thinking can coexist. The fact that Maxwell’s demon has to intervene with his sliding door contraption to mess with the natural movement of molecules shows that statistical law still perfectly holds, as statistical law in thermodynamics only governs the natural movement. However, with the sharpened faculties of Maxwell’s demon, one can escape statistical law, turning the odds back into their favour.

Under statistical law, the outcome of an event can reasonably be predicted (by working out which is the most probable outcome). However, the prediction is not always accurate — nothing can be always, or 100%, under statistical logic. Also, if statistical logic dictates that an unfavourable outcome is most likely about to happen, there is nothing one can do to stop the outcome from happening, apart from hoping that the outcome with minority probability happens in the end. However, the same thing can also be said about a favourable outcome with a majority probability – the much less likely, and unfavourable, outcome could still happen in the end. Say, there is a 2% chance that a brick would fall on my head tomorrow when I go out the front door; I am 98% safe. However, as there is still a statistical chance that I may not be safe, I would like to be more on the safe side, so I wear a hard hat tomorrow. The hard hat does not affect whether the brick will fall tomorrow, but when it does, the hard hat can reduce the injury caused by a falling brick, hence bringing the chance of me getting hurt (or killed) down from the original 2% to, say, 0.1%. However, since statistics can never be absolutely certain about anything (except for universal truths, such as the sun rises from the east, which does not require statistical thinking in the first place), there is still a 0.1% of me being killed by a falling brick tomorrow.
when I walk out the door. As a result, using statistics alone, chance may be tamed, it is not fully controlled. Also, when the unfavourable outcome does happen in the end, when a brick does land on my head tomorrow, it makes little difference whether it is derived from a deterministic logic (because I have done something bad to deserve a falling brick) or a statistical one (there is a 2% chance of a brick falling no matter what I do). However, if somehow I possessed a Maxwell’s-demon-like ability that allowed me to see into the future — similar to Cris (Nicolas Cage) in Next (Lee Tamahori, 2007), a very loose adaptation of a Philip K. Dick story, who sees all possible futures in the short term ahead of him and has the freedom to choose his future — I could simply avoid the falling brick altogether by choosing to go out the door at a time when the brick did not fall. In this case, neither chance nor cause-and-effect affects my safety whatsoever.

**Groundhog Day**

While it may be difficult to imagine Maxwell’s demon, or the reconciliation between deterministic and statistical logic, we can find its perfect illustration in cinema, in Groundhog Day (Harold Ramis, 1993). In the film, Phil Connors (Bill Murray) is our Maxwell’s demon par excellence.

Phil Connors is an obnoxious, egocentric weather presenter (recall weather reporting requires statistical logic) at a small local television station in Pittsburgh, Pennsylvania. For the fourth year in a row, he has to do an assignment which he hates a lot: he has to go to Punxsutawney and report on the story of its annual tradition of Groundhog Day. On Groundhog Day, 2nd of February, in Punxsutawney, people are gathered around and ask a groundhog, named Punxsutawney Phil, about the weather. According to the film, tradition has it that if the groundhog wakes up and sees its shadow, there will be “six more weeks of winter”; otherwise, it signals the start of spring. Eager to leave Punxsutawney as soon as he can after he finishes the assignment, our protagonist Phil (who happens to share the same name as the prognosticator groundhog), is forced to stay in the small town because a strong blizzard has closed down the roads. The spectator sees him spending an uneventful day. Everything looks mundanely normal until he wakes up the next morning and finds himself waking up on 2nd of February again. The cognitive spectator knows that Phil has woken up on the same day as soon as the clock radio plays I Got You Babe by Sonny & Cher which was played on the ‘previous’ day (also 2 Feb), but Phil does not realise it at all. First, he is suspicious about whether he is genuinely reliving the same day.
But then, after seeing a number of events that have supposedly happened the ‘previous’
day happen in exactly the same way, he starts to believe. And so every day he keeps
waking up at precisely 6:00 am on 2 February, Groundhog Day. Realising that no matter
what he does the day will still ‘reset’ back to 6:00am of 2 Feb the next morning, the already
egocentric and obnoxious Phil decides to “not live by the rules” and indulges in
irresponsible behaviour, such as reckless driving, hitting Ned Ryerson (Stephen
Tobolowsky) (his annoying high school classmate who he bumps into on the street) in the
face, smoking while feasting on “unhealthy” foods and not having to worry about his
health, tricking a woman, Nancy (Marita Geraghty), into thinking he is her old classmate
(which requires multiple revisits to this very same day to rehearse and gather information)
and pursuing her into a casual relationship, and, even stealing money from an armoured
tuck and getting away with it with a perfectly timed routine (which he has rehearsed from
his multiple revisits of the same day). He has been successful in all of his endeavours,
taking full advantage of his ‘privilege’ of being able to relive the same day over and over.

It is when he uses his newfound power to pursue Rita (Andie MacDowell), his producer
on whom he has a crush, that things start to go wrong. He gets slapped in the face after
every attempt (presented to the spectator in a comic succession). Giving up on pursuing
Rita, Phil gets hysterical and attempts to kill himself every (same) day. All different suicide
attempts succeed in killing him, but he will then wake up at 6:00 am on the next (same)
day again. After a comical montage of Phil trying different ways to commit suicide, the film
shows Phil and Rita sat down in a diner, and what Phil says here is particularly insightful
to our discussion of the dichotomy between deterministic and statistical thinking:

Phil: I’m a god.
Rita: You’re God?
Phil: I’m a god. I’m not the God — I don’t think.

*Rita is sceptical. Phil tries to convince her by describing the life stories
of everyone at the diner. Rita is still not convinced.*

Rita: Is this some kind of trick?
Phil: Or maybe the real God uses tricks. Or maybe he’s not omnipotent.
He’s just been around so long he knows everything.

*After a few more attempts to convince Rita, she finally believes him.*
Maxwell’s demon, or Laplace’s “vast intelligence”, are not portrayed as God, or any
deity. However, recalling one of Krantz’s respondents who ascribes their fortune and
misfortune to God’s will, deterministic thinking often coincides with religious beliefs. Phil’s
interpretation of “a god” certainly offers interesting insights as to understanding the
omnipotence of a deity. Like a fourth-dimensional being, Phil, as “a god”, has the ability
to leave the linear timeline, \( y = x \), that we, non-time-travelling beings, need to traverse in
a singular direction and at a constant rate (see Chapter 2). Every night, at the end of 2
Feb, Phil momentarily leaves his timeline and rejoins it, at the start of 2 Feb. Therefore,
regarding this particular short section of his timeline, the section that is 2 Feb, Phil knows
all of its details, its inner workings. He has learnt every detail of 2 Feb simply by repetition.
What Phil does with his repeating 2 Feb is also one of data collecting, the essential step
for statistics. He gathers data from Nancy simply by repeatedly asking; after obtaining
enough data, he succeeds in tricking her into believing that they have gone to the same
school together and shares some common interests. Phil also gathers data for his
armoured truck robbery; the process of his practicing is not shown in the film, but it is
implied that he has observed it for enough times that he knows every single movement of
the two guards, making his robbery as easy as simply walking up to the truck and casually
grabbing the bag of money. For Phil, chance is not only tamed, but he also has complete
control of it, because he is a Maxwell’s demon of this particular day, 2 Feb. As Maxwell’s
demon, Phil can observe every movement of every person in the small town of
Punxsutawney, hence he is able to manipulate their movement, just as Maxwell’s demon
can operate the sliding door to guide gas molecules to move according to its intention.

When Phil shifts his focus to trying to pursue Rita, the film becomes a little self-reflexive
upon its own hidden cinematic technique, based on statistical logic. As with the first
sequence of *Rear Window* and the “News on the March” sequence in *Citizen Kane*, the
sequence in which the spectator sees Phil tricking Nancy into engaging a casual
relationship has a purpose of ‘training’ the spectator. The trick Phil has played on Nancy
prefigures the similar trick that Phil attempts to play on Rita in the bar. In this sequence,
the spectator sees multiple repeats of essentially the same scene of Phil talking to Rita in
the bar, a series of ‘same but different’ scenes. (Fig.5.3) At first, the spectator sees Phil
enters the bar, joins Rita and casually asks about the prospect of the storm clearing (which
both Phil and the spectator do not need to know about because Phil is ‘stuck’ on the same
day; weather projection has no meaning to him). He then offers to buy her a drink. He
orders a Jim Beam whilst Rita orders the famous “sweet vermouth on the rocks with a
twist”. Phil looks up, signalling that he is remembering Rita’s choice. The film cuts abruptly, and Phil enters the bar again. Because of what has happened before, including the multiple times of waking up to the same song (“I Got You Babe”), the spectator at this point is already accustomed to the film’s routine of abruptly cutting to signify a new cycle of the same day of 2 Feb. Phil joins Rita and asks the same question. He offers to buy her a drink, only this time, instead of Jim Beam, he orders “sweet vermouth on the rocks with a twist”, to which Rita is now surprised. The scene continues. Phil pretends that the drink is his favourite and randomly makes up a fake reason for choosing it. Rita asks what they should be drinking to, Phil answers “to the groundhog” while Rita, slightly disappointed, adds that she usually toasts to world peace. The film cuts abruptly again and resumes for the third time this very same scene. This time it omits the beginning and Phil offers to buy Rita a drink. Of course this time Phil knows to order the vermouth, and drink to world peace. Later in a restaurant, the scene continues with a similar structure. Phil asks what Rita did in college. When she answers that she did 19th century French poetry, Phil bursts into laughter and ridicules, saying “what a waste of time.” The scene resets, this time, instead of laughing, Phil recites lines in French to impress Rita, which makes one of the many comical moments of the film.
Near the end of this sequence, Rita makes a remark, saying “you can't plan a day like this,” to which Phil replies, “You can; it just takes a lot of work.” Of course, Phil is referring to his data collecting from Rita, the repetition of which, alone, is indeed “a lot of work”. However, this sequence, and these remarks, also become self-reflexive when one considers the process of filmmaking. What this sequence shows is make explicit the multiple takes of conventional filmmaking. When an actor messes up their line, the director shouts "cut", and the scene begins again. Similarly, in *Groundhog Day*, when Phil messes up his lines, he waits for the day to reset and to act out the same scene again. The process of filmmaking also conforms to the statistical logic, in that multiple takes are recorded, and the director/editor chooses the best one (or, in probability terms, the ‘most probable’ take to work the best in the overall film). In *Groundhog Day*, the aesthetic of repeats not only reveals that in film, a character can become the visualisation of Maxwell’s demon, it also inadvertently reveals the process of filmmaking, the other of the camera that is usually not seen by the spectator.

At the end of the sequence where Phil tries hard to collect data and pursue Rita, it culminates in a montage of Rita slapping Phil’s face multiple times in different locations, signifying that all of Phil’s attempts, despite improving and progressing slowly over time (as in Fig. 5.3), end in failure. *Groundhog Day* then takes a subtle, but dramatic, turn in the middle of the film when Phil’s character slowly changes from the obnoxious, egotistical person to a genuine and more caring person. After his multiple failed attempts of suicide, he abandons all his statistical attempts of pursuing Rita; instead, he talks to her with full honesty and without agenda. This is where he reveals that he may be “a god”. Rita eventually believes him and, without Phil forcedly making any romantic advances, the two spend a genuinely good time together. After seeing a homeless man dying on the street, Phil sets out to use his ‘powers’ to help him live, but no matter what Phil tries, he fails; the homeless man still dies. This is a pivot point in the film when Phil starts to use his ‘powers’ for good. Phil seemingly helps out everybody in Punxsutawney on the *same* day of 2 Feb: he saves a child from falling from a tree; he helps some old ladies changing a flat tyre; he helps a man choking at a restaurant with the Heimlich manoeuvre; he even improves himself and learns to play Rachmaninoff’s "*Rhapsody on a Theme of Paganini*" (clearly an acknowledging nod to *Somewhere in Time*); he learns the Rachmaninoff piece so well that he even plays a jazz rendition in the end. In the end, the film shows no ‘reveal’, no explanation as to who, or what, or why, put Phil into his perpetual state of reliving Groundhog Day over and over. He simply wakes up to 3 Feb. *Groundhog Day* is at once
conventional in its narrative (in that it follows a cause-and-effect chain: gets ability to relive — then live irresponsibly — then tries to pursue Rita — then fails — then attempts suicide — then his character slowly changes — then he helps out with people), but at the same time *unconventional* in that it does not have a clear ‘reveal’. It may have a comforting resolution for the protagonist Phil, but it does not have a classical ‘reveal’ that explains the reason and the purpose of Phil’s earlier predicament (as *It’s a Wonderful Life* (Frank Capra, 1946) has done). Without any reason behind Phil’s perpetual reliving of the same day, *Groundhog Day* is similar to my ‘adapted’ version of *Citizen Kane*, without the key of ‘Rosebud’. The logic of cause-and-effect may hold up on a local scale, as a whole, the logic breaks down because of the lack of a ‘key’.

In this way, *Groundhog Day* effortlessly blends the two seemingly incompatible logics — deterministic and statistical — into a time-travel narrative (Phil is not a ‘free’ time traveller, more like a time-travelling prisoner, trapped in time). Meanwhile, films that depict multiple lines of narrative may at first appear to be embracing the logic of chance, of multiple probable outcomes / narratives, they end up reinforcing the logic of cause-and-effect even more than ordinary non-time-travelling, single-narrative films.

**Forking paths and incompossible worlds**

Cinema has numerous other examples where the logic of cause-and-effect and the logic of chance and of statistics can be seen to mingle with one another. Films such as *Blind Chance* (Krzysztof Kieślowski, 1981), *Too Many Ways to Be No. 1* (Wai Ka-fai, 1997), *Run Lola Run* (Tom Tykwer, 1998) and *Sliding Doors* (Peter Howitt, 1998) are among the examples which David Bordwell categorises as having what he calls “forking path narrative” (2007). The narrative in each of these films splits at a certain point, forking into different paths that represent different realities. For example, Fig. 5.4 shows the forking path narrative of *Run Lola Run*. The premise of the film is set just as any other conventional narrative film, as a single timeline. The premise is simple: Manni (Moritz Bleibtreu) accidentally loses a bag that contains the large sum of money he is supposed to hand to his boss; Lola (Franka Potente) tries to help Manni to gather the money he needs. From here the narrative splits into three different realities. These realities do not coexist in the same space and time; they are in parallel worlds. The first two constitute tragedies: Lola cannot get the money, and either one of the two dies at the end. However, in the third reality, Lola somehow gets the money while Manni somehow locates the bag
that he initially loses. Neither of them dies, Manni finishes his job with his boss, and Lola now has an extra bag of money, making this the most ideal of all the probable outcomes. From Bordwell’s analysis, one can see that these “forking paths” only conform to statistical logic right at the moment when the narrative forks. Once the narrative forks (such as in Fig. 5.4), each individual timeline still conforms to the old-fashioned cause-and-effect relation. Furthermore, as Bordwell points out, usually in a forking path narrative film, one particular forked path (the last one) “presupposes the others” (p181): very often information from one path ‘bleeds’ into other paths and the film implicitly assumes a sort of affinity between what should be totally different worlds. Other times, despite the fact that these different paths should run parallel against one another, they often form a before/after relation. For example, in Run Lola Run, the conversation Lola overhears at the bank between her father and his mistress is somehow continued onto the second reality. As Bordwell puts it, “what comes later modifies our understanding of what went before; retrospection is often as important as prospection.” (ibid.) This may in fact be describing a process of nachträglichkeit more than a dichotomy between statistical and deterministic logics. In nachträglichkeit, although the scenes, or experiences, which lead to ‘delayed realisation’ are repeats, these repeats are never meant to be understood to be running alongside one another, they form a before/after relation that resembles the cause-and-effect logic. Most “forking path” narrative films indeed follow a cause-and-effect
logic that is *disguised* as statistical logic, by virtue of the narrative being forked, implying the existence of a number of different possibilities which may in fact all point to one (the last path).

Films with multiple narrative lines that are genuinely portraying statistical thinking, rather than statistics-in-disguise, include *Rashomon* and *Last Year at Marienbad*. *Last Year at Marienbad*, as with other films by Resnais, and especially with scripts by Alain Robbe-Grillet, has no forking paths; they are quite simply paths. Fig. 5.5 is a simplified version of *Marienbad*. The path where the woman, A, and the man, X, indeed did meet the previous year and the path where they did not meet *never cross* one another. Even at the time when A and X are having conversations about their supposed meeting (or lack thereof) from the previous year, these two paths still do not meet simply because of the illogical connections between what is said between the two. Similarly, the four different accounts of what happened in the woods in *Rashomon* are, quite simply, paths that do not intersect with each other and are not formed from forking from a single path. This is because each of the four accounts in no way supports any of the others, unlike the forking paths in *Run Lola Run* where the three paths all seem to complement each other.

There are also other films that seemingly do not contain more than one narrative path, but upon multiple viewings, through *nachträglichkeit*, it may be revealed otherwise. For
example, in *Minority Report*, the ending sees the protagonist John Anderton (Tom Cruise) escape from prison and succeed in avenging his being framed for murder. However, as with the ambiguities that characterise *Total Recall* (1990 and 2012) — yet another adaptation of Philip K Dick’s work — the ending of *Minority Report* is filled with similar ambiguities, albeit in a very subtle way. An easily overlooked conversation from fairly early on in the film, between Gideon (Tim Blake Nelson) the prison guard and John\(^\text{13}\), reveals that prisoners see illusions where all of their fantasies come true. This could potentially explain the sudden change of fortune and the smoothness in John’s prison escape and the subsequent clearing of his name — that it is all in his imagination when in fact he is permanently locked in the prison. Similarly, in *Basic Instinct* (Paul Verhoeven, 1992), despite the general consensus that Catherine (Sharon Stone) is the real killer and Beth (Jeanne Tripplehorn) as a fairly obvious red-herring, a close inspection would reveal that the arrangement of the supposed red-herring is in fact more subtle and nuanced and can definitely support the thesis that Catherine is the red-herring and Beth is the real killer\(^\text{14}\). In each of these examples, the ‘version’ that is accepted by the general consensus, the one that is *explicitly* depicted on the screen for the cognitive spectator to unequivocally arrive at their conclusion, only represents the ‘most probable outcome’ in statistical terms. The alternative versions which are implicit and not at all depicted on screen, while being completely incompatible with the ‘most probable’ version, still represent a minor probability. The probability is minor, but it is still a probability nonetheless. It is in these films that the logic of statistics is manifested in its most precise, but also most subtle, way.

Statistical thinking renders even the most linear of film narrative merely as one of all the possible narratives for any given film. As the examples above have shown, the film does not need explicit references to forking-path narrative in order for forking paths to exist. Often, the discovery of these hidden forking paths is made through *nachträglichkeit* — even though the films themselves stay the same regarding their depictions of narrative events, the repeated viewings of the same films can yield different spectatorial experiences. This also reinforces the idea behind why we would want to view certain films multiple times.

\(^{13}\) This conversation is from which the epigraph of Chapter 1 is quoted.
\(^{14}\) However, the sequel *Basic Instinct 2* (Michael Caton-Jones, 2006), to all intents and purposes, negates this alternative interpretation, even though it is perfectly plausible without consideration of any inter- or extra-textuality.
Throughout this thesis, by the process of repeating viewing, my case studies — of films, film history and film theory — have yielded multiple interpretations. In the Introduction, the narrative in the Kung Fu Panda series may appear logical, but, by the process of repeating viewing there reveals several logical inconsistencies in the temporal arrangement of its narrative elements. In Chapter 1, cinema’s ‘founding myth’, of a panicked audience at the screening of L’Arrivée d’un train en gare à La Ciotat, may have happened; then the myth has been categorically refuted by historians such as Tom Gunning; but, then I went on to demonstrate that it does not matter whether the myth happened for it can serve different purposes — Christian Metz’s metaphor for spectatorial disavowal which has its usefulness, and Gunning’s insistence on the importance of historicisation as well as his development of the “cinema of attractions”. In Chapter 4, the boy in the advert “Misunderstood” has three versions: he is first considered detached; then he is revealed to be loving; but, finally, I demonstrated that, while he may be loving in his intentions, he ends up being detached all the same. Citizen Kane has played an important role in this thesis and has its own multiple interpretations. In Chapter 3, I demonstrated how ‘Rosebud’ is a mystery for the first-time spectator who tries to find its meaning. Then, as I moved onto repeated viewing in the subsequent chapters, ‘Rosebud’ was a symbol that signifies Kane’s lost childhood and what could have been had his mother not abandoned him. Finally, as I moved onto statistical thinking and the logic of chance and probability, by simply removing the very last scene of the ‘original’ film, it was revealed that there has always been a distinct possibility that ‘Rosebud’ may not mean anything at all. Meanwhile, by employing a cognitivist approach to film in Chapter 3, and returning to the origins of Freud in Chapter 4, I have demonstrated that psychoanalytic film theory and cognitivism are not two opposing methods to theorise film; by the logic of chance and probability, they are simply the different, and possible, interpretations to, or ‘versions’ of, Film Studies.

All of these different possible versions of my case studies and methods exist in the two-dimensional model of time set up in Chapter 2. The model represents the entirety of time where all of the possibilities coexist. The important thing to note is that these multiple interpretations do not negate or refute one another; they coexist as various possibilities. To traverse a two-dimensional model of time in reality is a time travel journey. Viewing a film — as well as viewing it again — is to freely move backwards and forwards in its two-dimensional cinematic time that holds its narrative and the film world. Such is cinema’s quality of time travel.
Epilogue

“That’s another thing we’ve learned from your Nation,” said Mein Herr, “map-making. But we’ve carried it much further than you. What do you consider the largest map that would be really useful?”

“About six inches to the mile.”

“Only six inches!” exclaimed Mein Herr. “We very soon got to six yards to the mile. Then we tried a hundred yards to the mile. And then came the grandest idea of all! We actually made a map of the country, on the scale of a mile to the mile!”

“Have you used it much?” I enquired.

“It has never been spread out, yet,” said Mein Herr: “the farmers objected: they said it would cover the whole country, and shut out the sunlight! So we now use the country itself, as its own map, and I assure you it does nearly as well.

Chapter 11, “The man in the moon”,

_Sylvie and Bruno Concluded_, Lewis Caroll

Once there was a man from Zheng who wanted to buy a pair of shoes. He measured his feet with a piece of string then set off to the shoe shop. At the shoe shop, he realised he had not brought the string. The man from Zheng returned home to fetch the string. By the time he got back to the shoe shop, it was already closed.

“The Man from Zheng buying shoes”, Han Feizi¹

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¹ Ancient Chinese proverb, by Han Feizi (281-233BC). My own translation and abbreviation.
2046 and Frenhofer’s masterpiece

In the DVD extra\(^2\) of 2046 (Wong Kar-wai, 2004), Wong recounted the difficulty he and his crew had been through in the making of the film. 2046 was originally conceived as a standalone project, in 1997, based on an idea that drew inspiration from the return of sovereignty of Hong Kong from Great Britain back to China in that same year, and the promise made by Deng Xiao-ping (Chairman of the PRC at the time of the signing of the Sino-British Joint Declaration in 1984) of “50 years unchanged” after the handover (the year 2046 will be the 50th year after the handover). The film began production in 1999. But it would then go on to go through numerous obstacles: financial difficulties, casting problems, delayed by the prolonged production of In the Mood for Love (Wong Kar-wai, 2000), and finally the outbreak of the SARS (severe acute respiratory syndrome) epidemic. During these delays, 2046 had undergone changes on its own. Wong described that he first envisaged the film to be comprised of three short sections, led by three different pairs of actors (perhaps in a similar structure to Chungking Express (Wong Kar-wai, 1994)). However, during the filming of In the Mood for Love, at the hotel where Chow Mo-wan (Tony Leung Chiu-wai) and So Lai-chen (Maggie Cheung) had their idyllic writing sessions, Wong noticed that the room number resembled ‘2046’. He then joked about it and suggested, “why don’t we make the room number 2046?” And so it had stuck — two initially separate projects had since become intertwined up to the point that 2046 became the sequel to In the Mood for Love. It is not simply a sequel; Wong in fact suggested viewers who had not seen In the Mood for Love to watch 2046 first, and treat the events in In the Mood for Love as “the missing chapters” (an observation that I have to disagree, as I find the progression from In the Mood for Love to 2046 natural where the reverse would be too complex).

Wong entered 2046 in Cannes in 2004 long before the film was finished. He explained his intension was to push himself and the crew to “just go for it” and finish what had already been dragged on for five years, which Wong described as “unusual”. He and his crew managed to get the film to screen in Cannes, but only just. Stephen Teo explains:

In prolonging the production period of 2046 over so many years and working on the project right down to the wire, thereby causing a last-

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\(^2\) “UK Exclusive Director Interview”, 2046 DVD extras.
minute delay to the showing of the film at the 2004 Cannes Film Festival in which it was to be a competing entry, Wong was certainly pushing the boundaries of his own method. Perhaps he had wanted to recapture the spirit of his last success at Cannes when he had similarly worked on eleventh-hour additions to *In the Mood for Love* — though without causing delays — hence rousing anticipation and expectation for the film (the Cannes jury awarded it two prizes). This time, however, Wong’s delays engendered criticism and the film failed to win a prize. When it was eventually shown, it was clear to many that it was still a work in progress … (Teo, 2005, p135)

A work in progress indeed. Wong described the version they screened at Cannes as having a lot of scenes missing, a complete lack of any CGI elements that portray the futuristic setting of the train going to this place called “2046”, also the sound was “not perfect”. It is hard to imagine what this ‘original’ (or, ‘pre-original’) version of *2046* actually looked like. Despite the ‘pre-original’ version sounding significantly unfinished, and the fact that Cannes was the first time Wong saw the film in its entirety, Wong claimed that he felt “the film [was] there”. After Cannes, Wong carried on working on the film until its general release later that same year. In this final version, he added the missing scenes back into the film, but, at the same time, took away some scenes that were shown in Cannes which he thought were unnecessary. Then after some rearranging, the final version ended up having roughly the same running time as the ‘pre-original’ version.

This thesis is the Cannes ‘pre-original’ *2046*, in its time-scheduling, difficulties and its methods to push for a Cannes screening. But the main difference between these two is that *2046* is a masterpiece; an “Unknown Masterpiece”3 (just as Teo remarks “hopefully, it will not take very long for the world to recognise Wong Kar-wai’s achievement in *2046*” (p149)), but a masterpiece nonetheless. Whereas Frenhofer has expertly, but also incomprehensibly, painted a foot buried in a wash of lines and layers of paint, I hope, in

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3 Honoré de Balzac’s short story “Le Chef-d’œuvre inconnu” (The Unknown Masterpiece). In the story, the old master painter Frenhofer has worked on his would-be masterpiece in too minute detail that even after ten years it is still the work in progress. The work in progress can only be seen by other painters as a confusing mess of colours that is supposed to part of a foot of Frenhofer’s model. As a result, no one can comprehend just how great of a masterpiece the painting would have been had it been completed. Frehofer is thus driven to madness, destroys the painting and dies.
my crossings and re-tracings, I have not obliterated my subject matter quite in the manner of Frenhofer.

However, I do hope some of my main themes have been implicitly threaded through the entire thesis. As a matter of fact, 2046 may very well represent all of the main themes being presented in this thesis.

Even though this thesis started off with the focus on time machines and time travel, as it progressed, time machines and time travel slowly became a metaphor for cinema, in particular the cognitive spectator’s mental construct, moving to and fro on the metaphorical graph made up of syuzhet, particular scene(s) from the syuzhet that act(s) as an anchor (e.g. “News on the March”), and fabula. When the narrative becomes too complicated, such is the case in some time travel films, the mental construct in the cognitive spectator also becomes complicated accordingly. 2046 indeed has a complicated narrative structure, in that it is very loose, and, a lot of narrative elements rely on the atmosphere and character study. In the film, the writer Chow writes a novel titled ‘2047’ which reflects Chow’s hotel room change (from room 2046), but, at the same time, also does not reflect it. While this may invite the cognitive spectator to read the film’s narrative alongside the narrative of Chow’s novel, very often the two narratives become intertwined and cannot be discerned. For instance, the Japanese man, Tak (Kimura Takuya) is at times the boyfriend of Jing-wen (Faye Wong), but at times Chow himself. Then as Jing-wen and Chow become close and start to write together (which recalls scenes from In the Mood for Love), their romantic intent for each other is at times explicit, but at times absent. As a voice-over, Chow even speaks of “had the timing been right, we may have already been together”; is he referring to characters in his novel in the first person, his relationship with So Lai-chen (In the Mood for Love), or his current ambiguous relation with Jing-wen? Indiscernibility works on multiple levels in 2046. And yet, the overall narrative of 2046 is quite simply linear: Chow comes back from Singapore and moves into a hotel room wanting to reminisce in room 2046; however, he gets bumped to room 2047, and a few casual relations with different women ensue. By binding chronological and non-chronological elements together seamlessly, and also adding extra depth layers of the actual narrative arc to the narrative arc of Chow’s novel, the complicated nature of the narrative of 2046 illustrates how the logic of chance and statistics (of different levels of intertwining narrative arc) and the logic of cause-and-effect (the linearity of Chow’s own narrative) can work alongside one another, which is strictly
impossible in the realms of scientific research, financial reports, company strategies, or government policy making. Cinema is the place where the logical and the illogical can coexist, and there will be no issue whatsoever. Master Oogway (from the Introduction) is not wrong all this time.

Perhaps the biggest concept that encapsulates this whole thesis is Freud’s concept of *nachträglichkeit*, which I have used in multiple ways. First I borrowed Mulvey’s use in her “delayed cinema” and considered the act of engaging in Film Studies is itself a *nachträglichkeit* experience — of *looking back* at film history and film theory, and of pausing the film when engaging in textual analysis and discovering elements that were unnoticed before. Then, in Chapter 4, I argued that *nachträglichkeit* can also be a technique in film narration, as well as narrative comprehension. The peculiar example of the advert “Misunderstood” has served me well in providing not just two layers, but three layers of interpretations. In those three interpretations, the third one resembles the first one, adhering to the ‘same but different’ aesthetic that fills this thesis throughout. In 2046, one also finds explicit examples of *nachträglichkeit*. The most striking one is the androids in Chow’s novel. As Chow explains, because of a technical defect, the androids that serve on the train going to the place named 2046 often cannot provide immediate reactions; these androids are said to have “delayed reactions”. On the train to the place called 2046, the Japanese man, Tak/Chow, asks one of the androids (also played by Faye Wong), “If I tell you a secret, would you like to leave with me?” The android does not react at all. Tak/Chow mistakes it for being rejected. However, much later, when the android is alone, she starts to react to this question and sheds tears because the timing is now delayed and there is no longer an opportunity to answer him. Within 2046, this recalls the scenes when Chow, in room 2047, first meets Jing-wen, in room 2046, when he hears her hysterically mumbling something incomprehensible. It is later revealed that she is speaking in Japanese⁴, and she is reenacting her final encounter with the Japanese man Tak. Tak asked her to leave with him, Jing-wen did not give any answer, and Tak left. Now Jing-wen regrets not immediately answering “yes”, so she is now reenacting this scene every day conducing a one-sided conversation constantly answering “yes” to a nonexistent question. It is the meeting with Chow that slowly eases her neurosis, as it were. Later, it is also Chow who gives her the courage to call Tak and seek for a reunion, and the narrative arc of Tak and Jing-wen gets a happy ending. Meanwhile, the “delayed

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⁴ Obviously for the spectator who speaks Japanese, this does not need ‘revealing’ as such.
reactions” in the android can also recall the events in *In the Mood for Love* where, near the end, Chow asks Lai-chen to leave with him, and follow him to Singapore. The fact that So Lai-chen does not appear again in Chow’s life in *2046* implies that either she rejected Chow’s request, or she did not answer at all. The episode of the delayed android in Chow’s novel indicates that So Lai-chen did not answer him at all. Therefore Chow tries to reenact the same scene again in his novel, and hypothesises that Lai-chen was merely having a “delayed reaction”, and in fact wanted to go with him. However, later in *2046*, Chow gives up, offers a new explanation for the android’s “delayed reaction” that nothing is being delayed, but simply that the android does not love him in the first place. *Nachträglichkeit* manifests in a final time in *2046* when another woman, also named So Lai-chen (Gong Li), appears in Chow’s life. Chow admits that he is trying to find the “old So Lai-chen” from the “new” one, but he also admits failure.

During the end credits, the soundtrack is comprised of news reading of some of the significant historical events in/for Hong Kong. The soundtrack is quite hard to make out clearly, but I could hear the official beginning of colour TV broadcast, the mention of Hong Kong experiencing a lot of difficulties and then achieving the “success of today”, the Vietnam War (regarding the problem of refugees), a mention of Margaret Thatcher in regards to the 50-year promise, as well as some random football commentary. Given the fact the number 2046 refers to the 50th year of the “fifty years unchanged” promise, it is hard not to draw political interpretation:

In the post-97 era, Wong suggests that Hong Kong now survives on a state of changeless time, which still causes citizens to drift and wander. The hidden political message of *2046* lies here: Wong is really telling his Hong Kong audience that they should take the opportunity of changeless time to reflect on themselves and their history - history being rooted in the past which has given Hong Kong its period of changeless time — in order to prepare themselves for the great changes that are to come after 2046. (Teo, p142)

Of course, just as Old Biff’s choosing to go back to 12 Nov 1955 can *either* be a sign of the “cosmic significance” in the space-time continuum, *or* simply “an amazing
coincidence\textsuperscript{5}; or the fact that ‘Rosebud’ may or may not mean anything whatsoever, 2046 can simply be a pure aesthetic enjoyment, of logical and illogical narrative elements, mixed with stylistic and atmospheric mise-en-scène, and the fantastic “Adagio” by Secret Garden as the painfully melancholic soundtrack. The film can be at once political, and at once entirely apolitical. The two incompossible realities coexist under the logic of chance.

**Missed opportunities**

At the end of the UK-exclusive interview with Wong Kar-wai on the DVD of 2046, there is one last ‘cosmic coincidence’ waiting for us. This is also a “missed opportunity”. The interviewer asks about what was then Wong’s upcoming project, “The Lady of Shanghai”. Wong talked about it as if the project was confirmed to be finished. He also revealed that Nicole Kidman was to play a woman who claims to be from Shanghai, creating a tantalising sense of mystery. Of course, the project never came to fruition, and, similar to Orson Welles’s *The Other Side of the Wind* which Welles himself could not finish in his lifetime, we may never get to see Wong’s vision that he was clearly looking forward to achieving. As a cosmic coincidence, “The Lady of Shanghai” is the exact title of one of Welles’s films. But that is as far as the coincidence ends, because the two do not share anything in common.

Whilst this thesis hopefully is not too akin to the Cannes-cut 2046 or Frenhofer’s “unknown masterpiece”, it definitely has seen some ‘missed opportunities’. These unexplored avenues will perhaps have to wait until future projects to bring them to the light of day. This project started off attempting to show that cinema will become a time machine. This initial ambition was as big as trying to construct a map that is “on the scale of a mile to the mile”\textsuperscript{6}. Some elements initially thought to be integral had to be given up. The “grandfather paradox” that implicitly characterises almost all time-travel narratives has been neglected in the discussions in this thesis. The paradox does have affinities with the Deleuzian crystalline image and ambiguous narratives such as ones in *Total Recall* (1990 and 2012) (incidentally, adaptations of Philip K Dick’s work also represent an area of study that sadly has to be largely neglected). However, the paradox itself is too complex an issue to be discussed here, when ‘ordinary’ non-time-travelling narratives are already complex enough to try and incorporate with the common characteristics of time travel film.

\textsuperscript{5} Back to the Future Part II. Also see epigraph of Chapter 5.

\textsuperscript{6} Sylvie and Bruno Concluded, Lewis Caroll. See epigraph.
Also, besides the cinema of Wong Kar-wai, I also personally admire the cinemas of Abbas Kiarostami, Christopher Nolan, and Krzysztof Kieślowski, for their affinities and parallels to the issues discussed in this thesis: Kiarostami for his original/copy relationship; Nolan for his intricate workings of complex narrative along with an implicit self-reflexivity of the cinematic medium; and Kieślowski for his illustration of the logic of chance. Either one of these auteurs could warrant a book-length study in their own right, such as Saeed-Vafa and Rosenbaum (2003), Haltot (2004), McGowan (2012) and Furby and Joy (2015). In the end, there was only space (and time, for the continuum) to situate their work as mere examples to support the overall argument, rather than giving them the dedicated space that their work certainly deserves.

Finally, this project has evolved from its initial, apparently outlandish, hypothesis that cinema will evolve into an actual time machine, and has subsequently proceeded to show how film spectatorship resembles a time travel journey. This turn has transformed the idea that ‘cinema will evolve into an actual time machine’ from a literal understanding into a metaphor. However, as with the blurring of media specificity among different forms of moving images — demonstrated by how a TV advert in Chapter 4 became most apt in demonstrating what I consider cinematic qualities — other media forms are certainly showing signs that ‘the time machine’ should be taken quite literally. As Elsaesser has noted:

the popularity and profitability of computer games has [sic] [...] given rise, among film and humanities scholars, to a renewed interest in mathematical game theory. Especially “new media” theorists have begun to rethink the logic of traditional narratives, arguing that the storytelling we know and are familiar with from Homer to Homer Simpson may itself be a historically specific and technology-dependent -- and thus a doubly variable -- way of storing information and of organizing direct sensory as well as symbolic data. It would therefore be not altogether unreasonable to assume that new technologies of storage, retrieval, and sorting, such as the ones provided so readily and relatively cheaply by the computer or internet servers, will in due course engender and enable new forms of "narrative," which is to say, other ways of sequencing and "linking" data
than that of the story, centred on single characters, and with a beginning, a middle, and an ending. (p22)

I would, therefore, like to suggest that ‘time machines’ may be taken quite literally in an emerging new form of moving images where time travel, forking paths, “choose your own adventure” and, most importantly, cinema, can all coexist harmoniously. This new form of moving images can be found in a new type of role-playing video games (RPG). Recent RPG titles such as Life is Strange (2015) and Until Dawn (2015) have incorporated all four elements seamlessly. In a traditional RPG video game, the player takes an active role and constantly inputs commands to control the movement of their in-game characters. However, in this new type of RPG games, the need for player input is scarce. The player spends the majority of their playing time watching brilliantly rendered computer graphics that resemble a full CGI feature film such as The Polar Express (Robert Zemeckis, 2004). In these games, emphasis is placed on their narrative progressions and their cinematic experience (as cutscenes are now often referred to as ‘cinematics’ in the settings menus in some of these games), so much so that the majority of instances when player input is required is when the in-game characters need to make choices. By allowing the player to make choices at numerous forking points of the narratives in these game/film hybrids, these games often directly reference the “butterfly effect” as the mechanics behind the unfolding of their narrative arcs. In fact, in both Life is Strange and Until Dawn, their save icons are in the shape of a butterfly, acknowledging the relationship between the ‘butterfly

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7 Also, in “Film Futures”, Bordwell makes a similar point by comparing the similarity between “forking path narratives” and Choose Your Own Adventure children’s books (2007, p187).
8 Until Dawn used real life actors and apply a layer of CGI imagery to merely digitise their appearances. Therefore the in-game characters share the exact same looks as their real life counterparts.
9 The ‘butterfly effect’, another unfortunately neglected topic in this thesis that has intricate relationship with time, time travel and both the logic of statistics/chance and the logic of cause-and-effect. Gleick (1987, p3ff) explains that Edward Lorenz, from his experiments of the weather, accidentally discovered that minute changes in the initial condition can result in a massive difference in the end result. Lorenz first published his findings in 1963, and then in 1972, he published another paper using the word ‘butterfly’. Meanwhile, Ray Bradbury’s 1952 short story “A Sound of Thunder” actually tells a story in which the accidental stepping of a butterfly millions of years previously has led to drastic changes to the present history, i.e. an illustration of the butterfly effect. Lorenz’s graphs that record the deviations between initial data and final outcome actually resemble the shape of a butterfly. It is unclear whether the term ‘butterfly effect’ was coined because of Bradbury’s story, or Lorenz’s graphs, or another case of ‘cosmic coincidence’.
effect’ and the interactive nature of their narratives. It is difficult to ignore that the aesthetics of video games and those of cinema are merging. By considering these interactive, time-travelling, ‘choose-your-own-adventure’ game/film hybrids, it is one of the many possible paths where the hypothesis “cinema will evolve into time machines” come true.

Either that, or it is all just a big cosmic coincidence.
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