BETWEEN REALITY AND REALISM: CGI AND NARRATIVE IN HOLLYWOOD CHILDREN'S FILMS

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Thesis Abstract

This paper addresses many concepts and concerns related to the previously underexplored topic of CGI and narrative in Hollywood children's films. Through an analysis of scenes from *Harry Potter and the Philosopher's Stone*, *The Chronicles of Narnia*, *The Golden Compass*, *The Spiderwick Chronicles*, and *Inkheart* it demonstrates that CGI spectacle does not exist in opposition to narrative progression as some scholars have suggested. Instead, by drawing on theorists like Lefebvre and Furstenau (2002), this investigation asserts that belief in fictional realism is paramount to spectatorship. It is shown that CGI can be used in a way that respects realism in the Bazin tradition and continuity editing in order to allow the spectator to believe in the fictional reality of narrative events. This belief is then connected to the emotional engagement of the spectator by drawing on ideas from Smith's (1994) *structure of sympathy*. The ultimate goal of this paper is to present a conceptualization of CGI that creates a stronger distinction between reality and film realism than previous literature has suggested.

Chapter 1: Introduction

Eulogies over the way cinema once was have been read and retracted for well over a decade now, and this can largely be attributed to the use of digital technology in film. From Wheeler Winston Dixon's "Twenty-five Reasons Why it's All Over" (2001) to Jon Lewis' *The End of Cinema as we Know it* (2001), media theorists and cultural critics alike have sounded the death knell for the way things were. Digital cinema takes on many forms, but in its most simple definition it can be considered the use of computing technology in the production, distribution, and exhibition of films. Contemporary filmmakers have tools at their disposal for digital sound, digital editing, digital colourization, digitally-rendered characters, and much more. Films can be shot and projected at a movie theatre in bits and bytes rather than through the use of celluloid. The very material that warrants the medium of film being called "film" has been largely cut out of the process. Furthermore, theatrical films have escaped the confines of the theatre to wander streets, travel on buses, and invade bedrooms on iPod, laptop, and cell phone screens. As a result, film theorists are forced to keep up with the speed of technological advancement as everything seems to change from the spectatorial tradition to a blurring between professional and amateur images.

The range of changes that digital technology makes possible to cinema will be elaborated on later in the literature review, but this study will predominately focus on the phenomenon of computer-generated imagery (CGI). With so many aspects of film in a state of change, it seems most fruitful to maintain focus on the fundamental elements of film. Arguably, the most fundamental building block of film has always been the moving image. CGI's prominent place on the screen seems to make it one of the most obvious

aspects of digital cinema and is therefore the most unproblematic to analyze. This study will take something new and examine its effects on something old. That is, it will consider the impact CGI has on classical Hollywood narrative. Narrative is another fundamental element of film as it is what is used in Hollywood filmmaking to connect images to each other. A study of the effect of something new on something traditional should be a strong indication of what changes with the addition of CGI.

CGI, in its most simplified explanation, is images created on a computer. These complex computer algorithms can now be viewed on the screen in the form of everything from large explosions to computer-generated (CG) monsters. They are also often present on screen in less apparent ways like multiplying extras in crowd scenes, like the protesters gathered for the rally at the Washington Monument in *Forrest Gump* (Zemeckis 1994).

In its early years of use, CGI was typically confined to genres like science fiction, horror, and action. This was especially the case for highly spectacular digital special effects like fiery explosions and creating otherworldly *mise-en-scène*. In recent years, the use of CGI has opened up to almost all genres to the point that one would be hard-pressed to find a contemporary Hollywood film in that does not use some form of CGI. From CGI mountains in *Brokeback Mountain* (Lee, 2005) to a ghost female lead in the romantic comedy *Just Like Heaven* (Waters, 2005), Hollywood filmmakers now utilize CGI in films across all genres.

One trend that seems to be increasingly evident is the use of CGI in Hollywood children's films. It is increasingly uncommon to see a children's film title on a marquee that is not some form of CGI-filled adventure. There are CG talking animals in films like

Charlotte's Web (Winick 2006); wholly computer-animated features like *WALL·E* (Stanton, 2008); and a plethora of CG characters and special effects in series like *Harry Potter*[1] and *The Chronicles of Narnia*.[2]

The extensive use of CGI in Hollywood children's films is prominent and widespread however, academic investigation into the subject is not. The genres of science-fiction, action, and horror all regularly utilize CGI to make the unreal appear real. Films from these genres are ones that are typically referenced in literature on the subject of CGI. However, the Hollywood children's fantasy film is one area of film that arguably relies as heavily on CGI, but remains vastly overlooked in scholarly work. With the extensive use of digital special effects and huge box-office success, it is surprising that films like *The Golden Compass (*Weitz , 2007), *Bridge to Terabithia* (Csupo 2007), and the *Harry Potter* series have not been extensively considered in relation to the digital changes that have occurred in film. It would be particularly interesting to examine how the images in these types of films have changed since the proliferation of the use of digital special effects. These films represent a large portion of film industry profits and integrate digital technology into the film text to similar degrees as films from genres like science-fiction, action, and horror.

A potential reason why this trend has been overlooked can be understood from Kelly's (2000) article "Toys in the Attic." The author makes the argument that theorists often overlook children's films because they make the assumption that there is little

[1] Films include *Harry Potter and the Philosopher's Stone* (Columbus, 2001), *Harry Potter and the Chamber of Secrets* (Columbus, 2002), *Harry Potter and the Prisoner of Azkaban* (Cuarón, 2004), *Harry Potter and the Goblet of Fire* (Newell, 2005), *Harry Potter and the Order of the Phoenix* (Yates, 2007), *Harry Potter and the Half-Blood Prince* (Yates, 2009), *Harry Potter and the Deathly Hollows: Part 1* (Yates, 2010).

[2] Films include *The Chronicles of Narnia: The Lion, the Witch and the Wardrobe* (Adamson, 2006), *The Chronicles of Narnia: Prince Caspian* (Adamson, 2008), *The Chronicles of Narnia: Voyage of the Dawn Treader* (Apted, 2010).

academic merit in analyzing them. Furthermore, these films could potentially escape academic consideration because of the commercial nature of Hollywood films. As Schauer (2007) points out, "Many critics and scholars refuse to examine films of the New Hollywood as works of art, instead discussing only the ways in which they reflect (often negatively) the capitalist culture that produced them" (206). By getting past what seems to be an example of a hierarchy within the sociology of knowledge, an examination of Hollywood children's films that heavily utilize CGI affords the opportunity to uncover new trends in CGI use as well as examine previously overlooked films. It is also problematic to make the miscategorization of grouping children's films that combine CGI and live action together with entirely computer-animated films, such as Pixar Animation Studios' features like *Finding Nemo* (Stanton and Unkrich 2003) and *Toy Story* (Lasseter, 1995). These different types of films deserve their own unique consideration. Without this, the distinctive characteristics of each type of films would never be addressed. The same claim can be made for studies that do not differentiate between children's CGI films and CGI films meant for adults. These different types of films could potentially yield different results that would not been known had they had not been separated into distinct categories.

Bearing the preceding information in mind, this study aims to fill a perceived gap in existing literature on the topic of digital cinema. The next section will explain the aims of this study in greater detail.

The study

As was previously discussed, this study will attempt to fill a perceived gap in literature on the subject of CGI in Hollywood films. The characteristics of CGI and

narrative will be examined in film analyses of the following films: *The Chronicles of Narnia: The Lion, the Witch and the Wardrobe* (Adamson, 2005), *The Spiderwick Chronicles* (Waters, 2008), *The Golden Compass* (Weitz, 2007), *Harry Potter and the Philosopher's Stone* (Columbus, 2001),[3] and *Inkheart* (Softley, 2009). These films were chosen for several reasons. First, these films can still be considered contemporary examples of Hollywood filmmaking because they were all released within the last ten years. The sample size of five films was chosen because five films will offer enough breadth of content without posing any threat to the quality of depth of the film analysis. Furthermore, since narrative will be a predominant topic in this study, it will be beneficial for the film corpus to have a similar narrative basis. These films all share similar narratives of a child or children leaving the familiarity of their lives to undertake a fantastical journey.

This study will start with a theoretical exploration of literature on subjects closely related to the topic of CGI in Hollywood children's films. These topics include the history of digital special effects, CGI in children's films, foundations of the digital cinema discourse, classical Hollywood narrative, and narrative and CGI. Each of these topics will be discussed in terms of pertinent literature on the subject.

The second chapter of this study will look at the relationship between CGI and narrative during scenes of narrative climax. It will be demonstrated that CGI spectacle does not exist in opposition to narrative progression as some scholars suggest. It will be shown how in some cases, CGI can enhance the narrative through the promotion of belief in the fictional reality of narrative events. By drawing on Lefebvre and Furstenau (2002)

[3] Also referred to as *Harry Potter and the Sorcerer's Stone*. However, for the purposes of this investigation, the title more common title of *Harry Potter and the Philosopher's Stone* will be used.

it will be suggested that belief in fictional realism allows spectators to emotionally experience film. Through film analysis, this chapter will argue that CGI in children's films promotes an intensification of Bazinian realism by showing several characters and actions within the same shot, thus representing Bazin's conception of *montage interdit*.

The third chapter of this study will examine the relationship between CGI and narrative causality by looking at scenes that depict danger or CG characters within the narrative. It will demonstrate how CGI can be causally integrated into scenes in a traditional manner by using classical continuity techniques. As in chapter 2, these continuity tropes will be discussed as they promote fictional realism and emotional response from spectators. However, in this chapter, emotional engagement will be expanded upon through the alignment and allegiance levels of Smith's (1994) *structure of sympathy*. This will allow for the analysis of the spectatorial experience in the specific context of children's CGI films. Instances where strong causality, spatial continuity, and fictional realism are not upheld will be attributed to decisions made by filmmakers rather than blamed on CGI.

This theoretical exploration is fueled by the prevalence of the trend of CGI in Hollywood children's films, as well as the fact that it is a topic that is vastly unexplored in current literature. The discourse surrounding the changes brought on by CGI in film is multifaceted with many different layers and viewpoints. Many of these will be explored here with added consideration given to CGI in children's films. What follows is an eclectic survey of literature with the aim of piecing together what CGI means to film and film theory and how children's films fit into this picture.

Chapter 2: Literature Review

History of digital special effects

Computer graphic imaging can be traced back to scientific studies on the mechanical means of producing graphic images in the 1940s and 1950s (McClean, 2007: 41). However, using digital technology to create computer-assisted art did not emerge until the 1960s when the Whitney brothers thought to use computers and optical printers to create short films (McClean, 2007: 42). McClean (2007) indicates that in the 1970s, key figures were working to develop the graphic-imaging techniques and programs that would allow films to be made with computers. Researchers like Ed Catmull, Alvy Ray Smith, Jim Blinn, and Robert Abel made advancements with the technology's production and use, but it was not until *Star Trek II: The Wrath of Khan* (Meyer, 1982) that the first computer-generated image sequence appeared in a major motion picture film courtesy of George Lucas's effects company, Industrial Light and Magic (Bordwell, 2006: 217). This was called the "Genesis sequence" and included a computer-generated explosion (McClean, 2007: 42).

There is also a Canadian connection in the significant milestones in the development of CGI. The computer-animated short film *Tony de Peltrie* was created at the Université de Montréal in 1985 by Pierre Lachapelle, Philippe Bergeron, Pierre Robidoux and Daniel Langlois. The film focused on a CG pianist and was critically praised as a breakthrough in the depiction of emotions and lifelike aesthetics in a CG character (www.adventuresinanimation.com, 2011).

Just a few years earlier *Tron* (Lisberger, 1982) became the first Hollywood film in which CGI was a main component. However, some blame the film's dependence on

computer graphics and lack of engaging narrative or characters for its failure (McClean, 2007: 43).[4] After the disappointment of *Tron*, it was not until the late 1980s when filmmakers like Ron Howard with *Willow* (1988)[5], and James Cameron with *The Abyss* (1989)[6] were willing to take a risk by using CGI again. The moderate success of these films would be overshadowed by the massive box office success of films that used CGI in the early to mid 1990s such as *Terminator 2: Judgement Day* (Cameron, 1993)[7], *Jurassic Park* (Spielberg, 1993)[8], and *Toy Story* (Lasseter, 1995)[9] (McClean, 2007: 43). *Forest Gump* (Zemeckis, 1994) is another box office success that used CGI in this early period. The film's less overt uses of CGI, like the digital placement of Tom Hanks into news reel footage of John F. Kennedy and other historical figures, showed filmmakers and audiences the more subtle power of the technological capabilities (Bordwell, 2006: 230).

As with any technology, time and research allowed for innovation and improvement within the field of CGI. As computers and CGI technology improved, filmmaking applications increased and the costs incurred by filmmakers using them decreased. Commonplace CGI practices eventually came to include removing dust specks and scratches from film negatives, wire removals, boom microphone removals, weather changes, and digital sets through the use of green screens (McClean, 2007: 43).

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[4] It will be interesting to see if *Tron: Legacy* (Kosinski, 2010) suffers the same criticisms as it heavily incorporates CGI and 3D technology.
[5] First use of 2-D digital morphing to show a character morphing into various animals (Bordwell, 2006: 223).
[6] First use of a 3-D computer-generated figure (Bordwell, 2006: 224).
[7] The displays of liquid metal morphing of T-1000 brings morphing technology and digital compositing to a new level (Bordwell, 2006: 227).
[8] The first time realistic creatures are rendered using CGI (Bordwell, 2006: 229).
[9] The first completely computer-generated feature.

The evitable result was a massive proliferation of special effects. The number of special effects shots in live-action films increased from ten to roughly 800 (McClean, 2007: 44).

Two more innovations of note in CGI's history are virtual camera movements and computer-generated performances. With the use of CGI, camera effects now include simulated camera moves, focus pulls, and lens effects such as halation (e.g. lens flare). These effects, along with the ability to shoot the camera for an unlimited length of time because of the ceased dependence on film stock, are what McClean (2007) refers to as the virtual camera (46). She gives the example of the opening shot in *Fight Club* (Fincher, 1999) that starts inside the protagonist's brain and ends at the barrel of a gun that is in his mouth (McClean, 2007: 47).

Computer-generated performance is the other important innovation. McClean (2007) indicates motion capture as the most effective way to make a computer-generated performance seem real. She defines it as, "…a means by which the physical performance of an actor…can be recorded as data and then plotted to a wireframe model to form the basis of a CG character's performance" (McClean, 207: 58). The first computer-generated character in film history appeared in *Young Sherlock Homes* (Levinson, 1985) (Borwell, 2006: 220). A more well-known example of computer-generated performance is the motion capture of actor Andrew Serkis to create the character of Gollum in *The Lord of the Rings* series (McClean 2007: 59). McClean (2007) indicates that one of the key changes in film history brought on by CG performance is that performance on screen no longer necessarily reflects the qualities of the recording arts, as the film image is seen to be increasingly representational (59). Changes to the recording tradition of the film medium will be discussed further in the second section of this theoretical exploration.

For now, it is useful to move on to an examination of the history of the rise of CGI in Hollywood children's films.

History of CGI in children's films

Today, Hollywood releases children's films at an extraordinary rate. It is difficult to find a contemporary weekend box office roster that does not boast at least one CG children's romp or CGI/live action combination adventure. It would be a major oversight to ignore this glaring trend in Hollywood cinema. Unfortunately, these films often escape academic investigation perhaps because of their commercial nature or perceived lack of academic merit. This study aims to depart from this trend by investigating the history of CGI in children's films. Some of the films will be familiar from the general history of CGI, but there is a distinct focus on the prevalence of CGI in children's films.

On the subject of the history of CGI, it is important to note that initially, studios used computer-generated visual effects predominantly in movies of the horror and thriller genres, which are genres popular genres, but are not necessarily ones intended for children. The popularity of film franchises like *Star Wars*, *Terminator*, and *Batman* brought these effects to the forefront of mainstream Hollywood cinema (Jones and Oliff, 2007: 17).[10] The ever-spreading use of computer-generated visual effects continued into the 1990s with films like *Men in Black* (Sonnenfeld, 1997), *Jurassic Park*, and *Titanic* (Cameron, 1997). Adult audiences began to appreciate what could be done with new technology in films (Jones and Oliff, 2007: 17). What Jones and Oliff (2007) refer to as the "…visually richer and more exciting…" visuals of these films kept up with the video

[10] The portion of the study focuses draws primarily on Jones and Oliff (2007). As was suggested in the introduction as one of the reasons for this study, CGI in children's films is an underexplored topic. Sources that exclusively retrace the history of children's films are rare, and sources that include CGI in their accounts are even scarcer. This source is the only one found during research to create an in depth historical account of children's films that includes a considerable focus on CGI.

games and music videos that were gaining popularity (4). This allowed these films the opportunity to obtain the attention of a much younger audience. According to Jones and Oliff (2007), both kids and adults became interested in the photorealistic creatures and effects in these movies and the divide between content for children's movies and mainstream ones aimed at adults started to shrink (4).

While computer-generated special effects represent one important part of CGI in films, computer-animated films represent another imperative branch. Much like CG effects, computer-animated films also started to bridge the gap between child and adult audiences. This trend owes a great deal to the 1988 film, *Who Framed Roger Rabbit* (Zemeckis and Williams). The film is a combination of live action and traditional animation. Although *Roger Rabbit* did not use CGI, it brought the two audience groups together in the theatre through its expert combination of live action and traditional animation.[11] The film was a mainstream hit that demonstrated the newfound power of appealing to both children and adult audiences (Jones and Oliff, 2007: 12). The film also won four Academy Awards, which served to add to its mass appeal (Jones and Oliff, 2007: 275).

Prior to *Who Framed Roger Rabbit,* animated movies experienced a period of economic decline. This was turned around by an era of animation revival in the early 1990s is often referred to as the second Golden Age of animation. (Jones and Oliff, 2007: 275). The Golden Age yielded massive commercial successes for Disney animation including *The Little Mermaid* (Clements and Musker, 1989), *Beauty and the Beast*

[11] It should be noted that this film was not the first to combine live action and animation. This combination of filmmaking tools had been attempted many times in the past, most notably by Disney with *Mary Poppins* (Stevenson, 1964) and *Bedknobs and Broomsticks* (Stevenson, 1971). *Roger Rabbit* is particularly noteworthy here because it reached an unprecedented level of success for this type of film, grossing over $351 million worldwide (the-numbers.com).

(Trousdale and Wise, 1991), *Aladdin* (Clements and Musker, 1992), and *The Lion King* (Allers and Minkoff, 1994). *The Lion King* represented the largest of these hits, grossing $317 million domestically (Jones and Oliff, 2007: 12). Its success brought on a troupe of animated films in the mid 1990s that, according to Jones and Oliff (2007), dealt with more adult story themes in an attempt to broaden their audience and revenues (16). This included films like *Pocahontas* (Gabriel and Goldberg, 1995), *Prince of Egypt* (Chapman, Hickner, and Wells, 1998) and *Quest for Camelot* (Chau, 1998). However, as the bounty of the Golden Age began to taper off, those involved in traditional animation found difficulty matching the former success of *The Lion King*. Animators and authors, James and Oliff (2007) believe that this is due in part to the rising popularity of digital visual effects in feature films. They explain, "Now the same kid who saw *Men in Black* looked at a film like *Quest for Camelot* and he didn't like it" (Jones and Oliff, 2007: 16). Simultaneously, box office returns on traditionally animated features began to dwindle and the popularity of CG visual effects in movies began to rise.

Then in 1995, Disney had surprisingly huge success with *Toy Story*. The film made more than any other animated feature that year, including the traditionally drawn *Pocahontas* (Jones and Oliff, 2007: 23). That same year *Babe* (Noonan, 1995), with its combination of live action and CG effects, won an Academy Award for Best Visual Effects. Other films that used a combination of CG effects and live action performed well at the box office, including *Casper* (Silberling, 1995) and *Jumanji* (Johnston, 1995) (Jones and Oliff, 2007: 23).

Jones and Oliff (2007) touch on how the trend of CGI/live action Hollywood children's films became prevalent. It was a combination of many factors that lead to the

early examples in 1995 like *Babe*. This trend still prevails in Hollywood children's cinema to the present day with films like *The Spiderwick Chronicles* and *Inkheart*. Since 1995, many CGI/live action combination films have proven to be box office successes. This profitable trend has found a new niche in the re-imagining of popular children's literature. Just recently, CGI and live action were used in conjunction to render Maurice Sendak's *Where the Wild Things Are* (2009) and Lewis Carroll's *Alice in Wonderland* (2010). Although *Alice* has grossed significantly more worldwide than *Wild Things,* both did fairly well at the box office.

Foundations of the digital cinema debate

CGI and its history is an area of interest for this investigation. That is why the previous section laid out a history of CGI and CGI in children's films. Also of great interest in this study is the theoretical discourse surrounding digital cinema. The technological change to the medium of film as a result of the advent of digital technologies is arguably the largest concern to arise in academic film literature in the last two decades. These concerns are for numerous reasons and have been argued in multiple ways, but most can essentially be reduced to anxiety over the perceived rupture to the previously photography-based nature of the medium. That is, the notion that film has always been a medium based on photographic realism is in crisis with the advent of the ability to create unreal images. The ability to digitally create images that never existed in real life is thought by some to fundamentally change the nature of the medium.

One of the earliest scholars to contemplate the subject of cinematic realism was André Bazin. Bazin (1967) is an excellent source to consider if one is attempting to examine how film was previously characterized by photographic realism. In "The

Ontology of the Photographic Image," Bazin (1967) likens photography and film to mummification in the way that they both preserve aesthetics over time (9). An important notion to draw from this comparison is that the similarity to mummification implies the preservation of the real thing. Bazin (1967) was a major proponent of the realist perspective of film and photography, which is evident when he states, "In spite of any objections our critical spirit may offer, we are forced to accept as real the existence of the object reproduced, actually *re*-represented, set before us, that is to say, in time and space" (279). For Bazin (1967), the media of photography and film made something much more than simple convincing copies possible. In his view, these media could be considered more like a form of time machine or wormhole that links the viewer with a time and place that was once in front of a camera. Also, both still and moving images captured on film are viewed as hard evidence that objects existed because they can be seen at least at one point in time (i.e. when they were photographed). Consider, for example, security footage as it is used in court cases as circumstantial evidence to suggest that someone was in a certain place at a certain time.[12]

Bazin's (1967) ideas on *re*-presentation can be linked to the notion of the indexical sign that arises in many semiotic discussions of film. The cinematic image's indexicality is thought to be based on the fact that the cinematic sign points to a reality that was filmed. Charles S. Peirce defines the indexical category of sign as one that can be causally or existentially linked to its referent (Prince, 1996: 28). According to Peirce, a weathercock is an indexical sign demonstrating the existential relationship between

[12] It is important to point out here that realism should be regarded as a construction. It is problematic to conceptualize it as a term with singular meaning when it is really made up of aesthetic and ideological choices at a specific moment in time. It is not a fixed notion. Rather, it is fluid and constantly revised. This study deals with Bazin's (1967) notion of realism because it is the one most commonly called into question by theorists when contemplating the status of the image in the digital age.

itself and the concept of wind direction (Woolen, 1972: 122). Photographs are another commonly-used example of this type of sign because there is a necessary physical relationship between what is placed before the lens and the photo that is the product (Prince, 1996: 28).

To return to Bazin (1967), the author states that, "Photography and the cinema on the other hand are discoveries that satisfy, once and for all and in its very essence, our obsession with realism" (1967: 12). Some scholars see the realism that was thought to be exclusive to film and photography as changing with the introduction of CGI. The change is that something real can now share the same film frame as something that has never tangibly existed. Prince (1996) suggests that the photography-based medium of film is thought to be changed by the fact that CGI, in the form of a complex computer algorithm, can now appear to exist side-by-side with filmed reality. That is, CGI (of something that was not filmed) can appear to share a three-dimensional space with other filmed objects, when in reality this was never the case (29).

Manovich (2001) summarizes the realism quandary of computer-generated imagery when he states that CGI is, "…something which looks exactly as if it could have happened, although it really could not" (301). Manovich is among the many film theorists that view CGI as representing a rupture in the cinematic medium. Manovich (2001) contends that the ability to create something that has never existed fundamentally changes cinema. In "What is Digital Cinema?" he presents the idea that cinema in the digital age is something more akin to animation, and asserts that contemporary film is more like a subgenre of painting (Manovich, 2001: 295). Film theorists like Manovich (2001) acknowledge that cinematic images have always been stylized with lighting, art

direction, film stock, lenses, as well as other techniques and devices. However, the images produced always held some sort of existential link with a filmed reality. Now, cinema has the technological capabilities to create things that never existed (Manovich, 2001: 295). He sees the image's potential to be tinkered with on a computer after being filmed, or to be wholly created on a computer without ever having any relationship with filmed reality as the source of the newfound plasticity and mutability of the film image (Manovich, 2001: 301).

Theoretical discourse on CGI is rife with a tension between filmed reality and CGI and this can be seen in much early 21st century literature on the topic. One such example is Craig's (2001) "Establishing New Boundaries for Special Effects." In order to address the subject of computer-generated special effects in film, Craig (2001) looks at the different ways in which the film *Contact* (Zemeckis, 1997) uses CGI. The main point that he tries to make about the special effects in this film is that things that might appear real are actually digitally rendered like reflections in car windows or clouds in the sky on the horizon (Craig, 2001:163). He sees this particular film as having a tension between realism and skepticism that manifests itself doubly in both the plot and the sheer volume of computer-rendered effects (Craig, 2001:164). That is, neither the protagonist in *Contact* nor the viewer of the film knows what is real. The tension between reality and skepticism that Craig (2001) points out is a central one within early academic works on the subject of CGI. This can also be viewed as a manifestation of the tension between filmed reality and CGI. Underlying this tension is the notion that some theorists think that the subtle computer-generated effects in films like *Contact* are problematic because the viewer can no longer decipher what is real.

As was briefly pointed out earlier, Prince (1996) is another theorist that contends that the photography-based medium of film is changed by the fact that CGI can now appear to exist side-by-side with the filmed image (29). He also perceives the tension in film theory brought on by CGI and views it as a tension between cinematic realism and indexicality (Prince, 1996:31). Price (1996) is able to contend with this tension by developing a new notion of realism that is not grounded in the indexicality of the sign. He proposes a "perceptual realism" in which images are perceptually realistic but referentially fictional. According to Prince (1996), these computer-generated images depict "…light, color, texture, movement, and sound in ways that correspond with the viewer's own understanding of these phenomena in daily life" (32). While these images are not real, they seem as though they could be based on comparisons the viewer makes with their experiences in three-dimensional space (Prince, 1996: 32).

Another author that attempts to deal with the theoretical tension resulting from the proliferation of CGI is Mak (2003). Mak (2003) does this by making a clear distinction between overt and covert digital special effects. The author makes the different categories clear when she states that overt digital special effects are, "…digital SFX visibly and audibly apparent in a film narrative, and covert digital SFX, which are audio-visually unnoticeable in any given diegesis" (Mak, 2003: 39). An example of covert digital special effects Mak (2003) offers is the floating white feather from the opening scene of *Forrest Gump*, and the crowd gathered for the protest at the Washington Monument (40). According to Mak (2003), the digital manipulation in these scenes is not easily apparent as the filmmakers attempt to make it appear as though computer-generated images are actually filmed images (40). The difference Mak (2003) points out

for overt digital special effects is that they are obvious to viewers. She gives the examples of dinosaurs in *Jurassic Park* or the liquid morphing effects in *Terminator 2*.

By categorizing two different types of CGI special effects, Mak (2003) could be viewed as appeasing the tension in film theory between what was really filmed and what has never tangibly existed. Mak (2003) names two dichotomous categories, one of which acknowledges that CGI may be covert and not immediately obvious to the viewer. In doing so, Mak (2003) legitimizes the notion that theorists and audiences need not be skeptical of CGI trying to trick them into believing a false filmed reality. By categorizing covert digital special effects, Mak (2003) brings this type of CGI into the theoretical discussion rather than have it present only as a discrete tension. Despite its positive contribution to the discourse on CGI and photographic realism, there is an aspect of Mak's argument that is problematic. That is, Mak's covert/overt distinction has a subjective dimension that makes the author's categorizations unstable. The conclusion of whether CGI is obvious or not is a decision that lies with the viewer. The judgment could vary from viewer to viewer, especially among those with differing familiarity with CGI. A computer graphics artist and a child would surely have conflicting opinions on what is overt and covert CGI. In this case, the categorization of CGI is helpful. However the shifting nature of the classification due to subjectivity is problematic if one wants to examine CGI. The unfixed nature of categorization of CGI in Mak's model is the reason this study will examine CGI based on McClean's (2007) model for CGI classifications, which will be discussed later in the chapter.

To conclude this section of the theoretical exploration of the changes brought on by CGI, it is important to examine aspects of CGI that are often overlooked in the

theoretical discourse. CGI allows the potential for change to aesthetic elements of film that may not be immediately obvious to the viewer. An important aesthetic aspect of CGI that is often overlooked is colour. This is why Higgins (2003) ideas on colour in the digital age are important to address. Higgins (2003) examines the first two major Hollywood films to use digital colour, *Pleasantville* (Ross, 1998) and *O Brother Where Art Thou* (Coen, 2000). He argues that post-production digital colour grading done in films like these does not represent a revolution, but rather a careful integration of the technology. He likens this careful integration to that of Technicolour in the 1930s just as filmmakers exercised restraint when using the new technology of technicolour (Higgins, 2003: 62). The author argues that contemporary filmmakers should build up a repertoire of conventions as they carefully integrate the new colour technology (Higgins, 2003: 74).

In addition to colour, the specific, unique aesthetic changes to film made possible by wire erasing and green screen CGI are also often overlooked in theoretical discourse. In "Tales of Upward Mobility: The New Verticality and Digital Special Effects," Whissel (2006) also addresses the changes to the film aesthetic made possible by these forms of CGI. She argues that digital special effects have allowed the deployment of verticality as a new form of cinematic representation (Whissel, 2006:23). Whissel (2006) looks at how films like *Titanic*, *X-Men* (Singer, 2000), *The Matrix* (Wachowski and Wachowski, 1999), and *Crouching Tiger, Hidden Dragon* (Lee, 2000) have all increasingly used the vertical axis of the frame with the help of digital special effects. She argues that because verticality implies gravity and the force required to overcome it, there is a strong element of visual pleasure found in power and powerlessness in these films (Whissel, 2006:24).

Whissel's (2006) article is an account for an aesthetic trend in film that is only made possible by digital special effects.

In addition, it is important to remember that even the overall aesthetic feel of the film image can be argued to change in the digital age. Prince (2004) argues this in "The Emergence of Filmic Artifacts." He sees digital imaging techniques as transforming cinema in three ways, through production, postproduction, and exhibition (Prince, 2004: 25). The author sees this era in film as a transition period in which the aesthetics of film are profoundly changing along with the viewers' perceptual understanding of film. He believes this will lead to a time when sharp, crystal-clear digital images like those found in *Star Wars Episode II: Attack of the Clones* (Lucas, 2002) and the *Lord of the Rings* series are the norm, thus making grainy images captured on celluloid into artifacts of film (Prince, 2004: 33).

Finally, editing is yet another aesthetic concern in the digital changes to cinema. In "Digital Editing and Montage: The vanishing celluloid and beyond," Lefebvre and Furstenau (2002) consider the impact of digital editing technologies. Unlike traditional editing, the authors point out that digital editing has the potential to be non-linear, and they compare the difference to that between VHS and DVD viewing (Lefebvre and Furstenau, 2002: 75). They move their discussion forward with a consideration of digital composite images as they relate to the central debate in film studies of realism versus formalism. The authors define composites as "…the layering of two or more image-elements to produce the impression of a single visual field" (Lefebvre and Furstenau, 2002: 82). Pixels are the smallest units making up the visual field that a digital image can be broken down into. In digital compositing, pixels can be replaced, removed, or

manipulated in a visual image (Lefebvre and Furstenau, 2002: 82). This is how film images and CGI can be blended or layered together.

After explaining digital compositing, the authors venture to examine whether or not it constitutes using Bazin's term "forbidden montage" (*montage interdit*), a notion related to a requirement for single framings in order to show character confrontations (Lefebvre and Furstenau, 2002: 83). They point out that Bazin equated composite images with forbidden montage.[13] However, the authors argue that this morally-based opposition is contrary to Bazin's contention that the spectator should believe in the fictional reality of a film's events. That is, if the composite were invisible there would be no way to tell if it was an effect and spatial integrity would be upheld. The emotional effect of the special effect would be similar (Lefebvre and Furstenau, 2002: 87). The authors problematize Bazin's position on composites. Lefebvre and Furstenau (2002) suggest Bazin confuses realism with reality for not considering the possibility of seamless, invisible composites, and for heavily critiquing forms of visual trickery created in post-production, but not those created during production (88). The central paradox Lefebvre and Furstenau (2002) find is that Bazin does not approve of the deception of composites, however, they are used to heighten believability by preserving spatial unity, thus not performing forbidden montage (88).

In the final part of their study, Lefebvre and Furstenau (2002) address the issue of indexicality and CGI, which was highlighted earlier in this literature review. The authors argue the computer-generated sign is just as indexical as a photograph or any other

[13]The authors invoke Bazin's views on composites in terms of the traditional methods of composites available at the time of his writing, such as superimposition, mattes, and optical printing. Lefebvre and Furstenau (2002) compare traditional and digital composites on the common basis of believability rather than considering them separately.

classically categorized indexical sign. They present the idea that an indexical sign merely serves what it represents and there is no limit on the ways in which this can be achieved (98). The authors refer to the change in indexicality in the digital age as a "waning of indexicality." This relates to the varying degrees of directness in which the sign is connected to reality. With this comes a paradigm shift in the experience of film. Like photographs are directly connected to the existence of an object, CGI is indirectly connected, but is made in the hope of being interpreted as photographic image based on its photorealism (Lefebvre and Furstenau, 2002: 99).

Classical Hollywood narrative

Now that the foundations of what CGI theoretically changes in the medium of film have been established, it is important to consider what seems to have emerged as one of the largest concerns over these changes. One of the important issues that arose for theorists with the integration of digital technologies into film was the effects of CGI on the traditional narrative style of Hollywood films. However, to understand the perceived effects on narrative one must first understand the traditional conception of narrative style in Hollywood films.

The classical Hollywood narrative has been the prevailing narrative structure in Hollywood films since the 1920s (Gianette and Leach, 2005: 39). From this early period in film history the classical Hollywood narrative has pervaded mainstream movies. Generally, classical Hollywood narrative films are based on a conflict between a protagonist and an antagonist, and focus on how the protagonist will accomplish what they want in the face of the antagonist's opposition (Gianette and Leach, 2005: 39-40). In subsequent scenes, the conflict intensifies and builds in a pattern of rising action.

These scenes will be linked to each other through a cause and effect relationship. This typically builds to a climax where the protagonist and antagonist face each other in a battle with one side emerging as the winner. Once the dramatic intensity of this collision subsides, the story ends with formal closure (Gianette and Leach, 2005: 40). It is important to view these elements as conventions and not rules. They are generally observed, not necessarily obeyed. There are exceptions to narrative conventions made in films that can still be considered as having a classical Hollywood narrative.

Authors Bordwell and Thompson (1997) have written extensively on what they have dubbed the "classical Hollywood narrative." In *Film Art: An Introduction*, the authors create a clear definition of narrative,

> We can consider a narrative to be *a chain of events in cause-effect relationship occurring in time and space*…Typically, a narrative begins with one situation; a series of changes occurs according to a pattern of cause and effect; finally a new situation arises that brings about the end of the narrative. (Bordwell and Thompson, 1997: 90)

Essentially, it is the timeless paradigm of a story with a beginning, middle, and end. For the two authors, causality, time, and space are all essential to the classical Hollywood narrative (Bordwell and Thompson, 1997: 90). In terms of causality, they assert that the spectator actively does the work in his or her own mind to connect events in a film by cause and effect (Bordwell and Thompson, 1997: 94). Bordwell and Thompson (1997) make similar statements regarding the temporal order in a film. They suggest that flashbacks and other presentations of scenes out of temporal order do not confuse the viewer because they are able to mentally rearrange events into the order they would have

most logically occurred (96). For these authors, work to construct narrative is often done within the viewer and not laid out on the screen itself. According to the authors, narrative is not to be confused with plot, which they define as, "…everything visibly and audibly present in the film before us" (Bordwell and Thompson, 1997: 92). In their view, the narrative of a film goes beyond its plot to include inferred events that the audience never witnesses (Bordwell and Thompson, 1997: 93).

The idea of causation in narrative is of utmost importance for the spectator to do the work of making sense of the events occurring in film. In "Things that Come After Another," András Bálint Kovács (2007) discusses the purpose of causation when he states, "…direct representation of causation in narratives is a shortcut for representing laws of nature or society regularly manifesting themselves in individual series of events" (160). Bordwell (2006) expresses a similar sentiment when he states, "…we understand stories in general because they are a heightening and focusing of skills we bring to understanding everyday social life—connecting means to ends, ascribing intentions and emotions to others, seeing the present as stemming from the past" (15). Kovács (2007) and Bordwell (2006) can be interpreted as arguing that even though films can be shown to take place in worlds different from the viewers' own, it is through causation that respects laws of nature and society that viewers are able to do their own work to make sense of events and construct narrative. For example, when a shot shows a character beginning to walk through a door and the next shot shows them in another room, the spectator can make a causal connection between these two events to piece together why the character is in a new location in the second shot. The viewer can reason that doorways work in essentially the same way in the world of the film and their world. If

one walks through a doorway, a common effect is to enter a new room or location. The normal laws of nature and society still apply, and the familiar effects can be expected out of any cause.

Despite the claim made by Gianette and Leach (2005) and others that classical Hollywood narrative has been the narrative paradigm in major motion pictures since the 1920s, some argue that it is not as prevalent as it once was. Schauer (2007) outlines the idea presented by other film scholars that it has been replaced by something dubbed "post-classical narrative." Although Schauer (2007) does not agree that classical Hollywood narrative has been replaced, he argues that theorists of post-classical Hollywood believe that "…post-Fordian industrialization and conglomeration have lead to dramatic shifts in film style and narrative" (191). These shifts are generally regarded as negative, exhibiting a decline in attention to artistic unity, narrative potency, and political relevance with greater consideration given to film revenues (Schauer, 2007). For some, the rise of post-classical narrative is synonymous with the rise of the blockbuster. In films representing the classical Hollywood narrative, elements of style were seen as subservient to the narrative. That is, narrative had a hierarchical power over style in that stylistic choices were always motivated by the narrative. For example, for a point-of-view shot to be included in a film it would have to be narratively justifiable, like the antagonist was voyeuristically watching the protagonist through a window. Schauer (2007) points out that this is no longer thought to always be the case for post-classical narrative films. In Schauer's (2007) account of post-classical narrative he explains,

> In contrast, contemporary films are accused of being constructed not to provoke thought or even generate an emotional connection between the characters and

> audience, but to jolt and arouse the spectator like a roller coaster (an oft-cited metaphor for the New Hollywood). The plot, as it is, exists only to connect one epic action sequence to another (194).

Schauer points out that an important element in contemporary films thought to represent the post-classical narrative style is flashy special effects, including computer-generated ones. These computer-generated images are often used to render the epic action sequences that some see forming the roller coaster-like narrative of contemporary Hollywood films. Much like this conceptualization of narrative includes acknowledgement of CGI, the specific concerns of CGI's relationship to narrative are the subject of discussion in the next section.

Narrative and CGI

Now that classical notions of narrative are established, it is useful to explore different views on the subject of film narrative in the age of CGI. The question most scholars attempt to address is whether or not the use of CGI changes narrative. Here, literature from scholars of differing views on the answer to this question will be examined. First, this investigation will return to Mak (2003), whose distinction between overt and covert digital special effects was discussed earlier. On the subject of CGI and narrative, she argues that overt and covert digital special effects influence the spectator's relationship to narrative time and space in different ways. Mak (2003) views overt digital special effects as disruptive to narrative temporality because they require precognitive audience reception. To explain further, according to Mak (2003), moments of visually overwhelming CGI distract the audience from concentrating on the main plot and force them instead to concentrate on having their senses audio-visually stimulated. Mak (2003)

states, "These instances, in a figurative sense, make 'time stand still' for us and therefore represent spatialities that disrupt temporarily in relationship to spectatorship" (41). Essentially, the change to narrative perceived by Mak (2003) is that narrative temporarily suspended while spectators pause to take in the CGI spectacle. For Mak (2003), narrative and spectacle are dichotomous categories.

Conversely, the author sees covert digital special effect as perpetuating narrative temporality because they only require cognitive audience reception (Mak, 2003). According to Mak (2003), because special effects of this category of CGI are concealed to look like they are not digitally generated, they allow the spectator to retain focus on the narrative elements of the film (41-42). Mak (2003) contends that spectators are not distracted by the artifice of covert digital special effects.

Also of the view that narrative changes with the use of CGI is Aldred (2007) in "All Aboard the Polar Express: A 'Playful' Change of Address in the Computer-Generated Blockbuster." This author creates an explanation for narrative in the age of CGI that is specific to computer-animated children's films. Aldred (2007) accounts for the digital aesthetics and narrative of *The Polar Bear Express* (Zemeckis, 2004) and other computer-animated films by relating them to the digital video game. She argues that film and video game characters, narrative, and aesthetics have never been more intertwined than they are in the contemporary context (Aldred, 2007:166). Aldred (2007) is able to give a potential model for how narrative changes with the proliferation of CGI. Specifically interesting for this particular theoretical investigation are the changes to narrative unique to Hollywood children's films that the author is able to elaborate on.

On the other hand, there are theorists that argue that not much has changed in relation to film narrative in the new digital context. It is useful here to return to Bordwell who was discussed earlier in relation to the classical Hollywood narrative. As one of the seminal theorists on film narrative, it is helpful to consider his thoughts on narrative in the age of CGI. In the article "Intensified Continuity: Visual Style in Contemporary American Film" (2001) and the book *The Way Hollywood Tells it: Story and style in Modern Movies* (2006), he argues that despite the technological changes in cinema, film still exhibits the same visual and classical continuity narrative style that it did in the Hollywood studio era. He acknowledges a new style in Hollywood cinema that involves strategies in camerawork and editing. He identifies these as predominantly being "…rapid editing, bipolar extremes of lens lengths, reliance on close shots, and wide-ranging camera movements" (Bordwell, 2006:121). However, while he points out this new style, he asserts that it is merely an intensification of already established techniques (Bordwell, 2001: 16). Bordwell cites the effect of this as a more of a loss of expressive resources, rather than a change to classical Hollywood narrative. As opposed to Mak (2003) and Aldred (2007) who assert that overt special effects have an effect on narrative, Bordwell (2001) argues that digital technologies do not change much about the film text. To him, they only slightly alter the established way of doing things.

In *The Way Hollywood Tells it*, Bordwell (2006) also addresses the notion of post-classical cinema previously outlined by Schauer (2007). Bordwell describes the trend similar to his colleague as a change in film content, especially narrative, since the classical studio era. He attributes this to the rise of the blockbuster, the megapictures that saved major companies with their large box office and ancillary product profits

(Bordwell, 2006: 5). With the unfaltering tension between art and commerce in film theory discourse, it is not surprising that many film scholars describe post-classical cinema negatively when comparing to its predecessor. Bordwell (2006) quotes Schatz who says films in the post-classical era have become, "'…increasingly plot-driven, increasingly visceral, kinetic, and fast-paced, increasingly reliant on special effects, increasingly 'fantastic'…" (5). Bordwell (2006) also references others who claim "story telling was undercut by spectacle," talk about "the collapse of narrative," and assert that "stylistic unity evaporated" (5). However, as was pointed out, Bordwell does not suggest that films or film narrative change significantly in the postclassical era. Although he does not mention CGI very often in relation to postclassical cinema, the time period is concurrent with its emergence and use, and his views on spectacle are certainly relevant. While discussing the action film, Bordwell (2006) argues that,

> Narrative and spectacle aren't mutually exclusive concepts. Aristotle long ago indicated that spectacle *(opis)* is a manner of showing forth plot *(muthos)*. Every action scene, however 'spectacular' is a narrative event and it can advance characters' goals and alter their states of knowledge (104).

This argument is relevant in this investigation as it is in opposition to Mak's (2007) view that narrative and spectacle are mutually exclusive concepts that cannot co-exist on screen at the same time.

McQuire (2000) can be viewed as possessing a similar perspective to Bordwell (2001) on the subject of the effect digital technologies have on the film text. In "Impact Aesthetics: Back to the Future in Digital Cinema?: Millennial Fantasies," he addresses the contemporary debate over whether or not CGI is leading to the demise of narrative

and creating a cinema that privileges the spectacle. He inevitably concludes that narrative will not be overcome by the new technological innovations that allow possibilities for greater spectacle, but the spectacle will still retain its newfound importance (McQuire, 2000: 54).

One of the most extensive sources on the topic of the relationship between narrative and CGI is McClean's (2007) *Digital Storytelling: The Narrative Power of Visual Effects in Film.* McClean (2007) sets out to answer whether or not the rise of nonnarrative usage of DVFx (digital video effects) is affecting classical narrative structures in film (218). The author ultimately comes to the conclusion that narrative remains the same in the digital age despite a widespread use of DVFx. McClean (2007) asserts that traditional story craft practices are what drive the use of special effects and not the other way around (218). McClean (2007) focuses on the idea of storytelling in film and sees most Hollywood film narratives as falling under Joseph Campbell's monomyth of the hero's journey, which is derived from common elements in stories across different time periods and societies (105). McClean (2007) outlines Campbell's version of the ancient story as follows,

> The monomyth he defined in *The Hero with a Thousand Faces* traced the journey of the hero from the moment adventure presents itself to the hero's return bearing the elixir needed to restore the world. On the journey the hero encounters helpers, endures tests, and undergoes a death and rebirth that allows him…to return with the means to save his community. (105)

McClean (2007) sees this myth as still being prevalent in the narrative of contemporary Hollywood films that use CGI. The author argues that CGI provides new means, tools,

and approaches for bringing these myths to the screen (McClean, 2007: 226). For example, McClean (2007) points out the increase of the sublime use of digital special effects in films like *Amélie* (2001). She gives examples of digital effects in the film that convey information from Amélie's point-of-view like the seemingly x-ray CGI shots of her beating heart under her shirt when she sees her love interested or a hidden key shown through her pocket. In these moments, the spectacle of CGI is more about "…the concept and the emotional response being sought or conveyed" than it is about displays of technological splendor (226). However, McClean (2007) does not view CGI as allowing the potential for a profound change in the stories or story structures within the medium of film (226). She contends that some uses of CGI can uplift the viewer from the narrative, but do so without removing the audience from its context (226).

McClean (2007), however, acknowledges a few changes as taking place with the proliferation of CGI in Hollywood feature films. First, she addresses the claim that theorists like Mak (2003) have made about overt digital special effects suspending narrative temporality to give priority to the spectacle. Similar to Bordwell (2006), McClean (2007) argues against this saying that CGI can function both spectacularly and narratively at the same time (218). The author acknowledges that action films are notorious for scenes that have an onslaught of CGI special effects. With this specific genre in mind, McClean (2007) notes that CGI can often be self-reflexive and spectacular, however, these same qualities are often specifically part of the narrative of the film by establishing the diegetic world or exaggerating violence (222). Essentially, McClean (2007) is at odds with other theorists' claims that spectacle and narrative exist in direct opposition to each other.

Additionally on the subject of action films, McClean (2007) makes an important point about the deceptive power of CGI violence. She states,

> Drawing the conclusion that these images are realistic—even if they are photorealistically portrayed—would be to accept a state of false cognitive realism; what we see and believe to be true is simply not so, even if we have seen many persuasive visual representations of such instances. (223)

McClean (2007) also points out that real violence is nothing like it is rendered on the screen (223). This could be interpreted as arguing against theorists that problematize the new level of photorealism made possible with CGI. McClean (2007) heeds against the argument that the spectator can confuse film realism and reality. For her, film photorealism made possible with CGI is merely another form of artistic representation within the medium.

Much like Mak (2003) divides CGI into the two dichotomous categories of overt and covert CGI, McClean (2007) divides CGI into different categories by type. McClean's (2007) categories are divided into eight classifications for the narrative use of CGI: documentary, invisible, seamless, fantastical, exaggerated, surrealist, new traditionalist and hyperrealist. With the discussion of these categories, McClean (2007) presents the idea that digital special effects bring about the ability to move away from the spectacular tradition of special effects by having the potential to not be apparent to the spectator.

The first category of narrative use of digital special effects is documentary, which entails the open and apparent use of digital effects to create documentary-style footage or graphics. They are used to deliver information that would otherwise require heavy

exposition to do so (McClean, 2007). McClean (2007) gives the example of a scene from the documentary *Solarmax* (Weiley, 2000) where digital visual effects are used to render and image of the earth ringed by labeled satellites.

The next category of narrative use of CGI is called invisible. As opposed to documentary uses, invisible narrative uses of CGI are deliberately concealed. They are usually used to "…preserve the diegetic world as well as deal with practical implications of filmmaking" (McClean, 2007: 77). An example McClean (2007) gives is the digital removal of an eye blink in a car crash scene in *Adaptation* (Jonze, 2002).

Seamless uses of CGI are similar to invisible uses in that they cannot be seen, however they become detectable when subjected to a degree of scrutiny and consideration (McClean, 2007: 78). They are able to keep the story believable with their low visibility, but if the audience thinks about them they can conclude that an effect is being used. An example of the seamless narrative use of CGI would be the backgrounds used in *Titanic*.

Exaggerated effects help films find a middle ground between real world narratives and extraordinary tales. The images these effects depict are not impossible and are realistically rendered. However, they are depicted in the unreal circumstances of the story so they are more of a hypothetical visualization of what something were to look like if it were to happen in real life. One of the examples McClean (2007) gives are the realistic looking, computer-generated natural disaster scenes in *The Day After Tomorrow* (2004).

Fantastical effects are the most spectacular of McClean's (2007) categories mentioned thus far. McClean (2007) explains the fantastical category as using CGI to "…create images of astonishing qualities and realize the impossible to the highest

standards of perceptual realism" (89). They are most often used in films that take place in fantastical circumstances, and they are usually supported within the diegesis of the fantastical world of the film. McClean (2007) illustrates this category with the example of the digitally-created images of fairies in *Fairy Tale: A True Story* (Sturridge, 1997).

The next category McClean (2007) addresses is the surrealist use of CGI. She states, "The surrealist use of effects also relies upon quite spectacular effects and uses them with great imaginative flair in order to make conceptual statements tied to the theme of the narrative" (McClean, 2007: 93). McClean (2007) is quick to point out that while these images are spectacular, they still serve the narrative by dealing with themes that require a more detached visualization. The author illustrates surrealist effects with the example of the absinthe-induced dream sequence of green dancing fairies in *Moulin Rouge* (Luhrmann, 2001).

New traditionalist and hyperrealist are the two categories McClean (2007) divides wholly computer-generated, animated features into. New traditionalist films bring a new visual style to the traditional narrative forms and conventions of feature-length animated films (McClean, 2007). An example from this category would be *Toy Story*. Hyperrealist refers to films that "…seek to create perceptually realistic works using animation techniques" (McClean, 2007: 99). The images in these films are intensely scrutinized for their realism. Examples include films like *Final Fantasy* (Sakaguchi and Sakakibara, 2001). According to McClean (2007), films can also have aspects of hyperrealism and cites the extensive use of performance capture in *The Polar Bear Express* as an example.

Computer-generated composite images could potentially fall under McClean's (2007) description of seamless or exaggerated narrative uses of CGI. In "Digital Editing and Montage: The Vanishing Celluloid and Beyond," Lefebvre and Furstenau (2002), whose thoughts on digital editing and the indexicality of CGI were addressed earlier, discuss digitally created composite images. Composites are a type of special effect that consist of "…layering two or more image-elements to produce the impression of a single visual field" (Lefebvre and Furstenau, 2002: 82). In the past, superimpositions, mattes, and optical printing were used to create this layered visual effect, but today composites are made using a computer. In their discussion, the authors try to situate composites within the Bazin/Eisenstein and realist/formalist opposing camps of film theory. They bring up an example presented by Bazin in "The Virtues and limitations of Montage" from the film *Where No Vultures Fly* (Watt, 1951). The film shows a full shot of boy holding a lion cub facing off against the cub's mother, while the boy's parents look on anxiously. When boy puts down the cub, the mother comes to pick it up. The boy then returns to his elated parents. Bazin argues that this moment would not have the same narrative meaning if it was shot in montage rather than a full shot showing the little boy in proximity to a real lion (Lefebvre and Furstenau, 2002: 84). Cutting this scene into several shots to show action would serve as an instance of *montage interdit*, which was explained earlier in this chapter.

Lefebvre and Furstenau (2002) compare this scene with one from the contemporary film, *Gladiator* (2000, Scott). *Gladiator*, uses blue screen CGI technology to create composite images that show Maximus (Russell Crowe) face off against live tigers in the same full shot. In *Gladiator*, the tigers are far from docile and are shown

attacking Maximus. According to Lefebvre and Furstenau (2002) this was achieved by shooting the tigers and humans separately, with the tigers acting aggressively in front of a blue screen. Then a special effects house composited the shots of the tigers onto the ones with the human actors. Without reliance on montage this was able to give "absolute spatial unity in perfect photo-realistic fashion" (Lefebvre and Furstenau, 2002: 85). The authors resolve that computer-generated composites are a paradox in the Bazin/Eisenstein divide. With Bazin's example from *Where No Vultures Fly*, the authors view him as saying that "…it is not so much the narrative of a film *per se* that is important, but the emotional experience of the cinema as a system or mode of belief in the 'fictional reality' of narrative events" (Lefebvre and Furstenau, 2002: 84). The authors point out that CGI composites are deception in the sense of Bazin's conceptualization, but it is deception used to make the story of the film realistic and believable, therefore they aid in the "belief in the fictional reality of narrative events" (Lefebvre and Furstenau, 2002: 84). For these reasons, the authors have difficulty locating the notion of digital composites in either the realism or formalism traditions in film theory.

The proceeding has been a review of literature surrounding the subjects of narrative and CGI. One of the major trends identified in the literature review was a tension between narrative and spectacle. On one side of the spectrum there are some theorists like Mak (2003) who argue that CGI pits spectacle and narrative at odds with each other, with overt CGI suspending narrative temporality in favour of spectacle (41). Conversely on the other side of the debate, Bordwell (2006) argues that film still exhibits classical continuity narrative style, but in a more intensified version through already established techniques like rapid editing and wide-ranging camera movements (121).

Similar to Bordwell's (2006) argument that spectacle is subordinate to narrative, McClean (2007) argues that narrative continues to drive the use of special effect with the proliferation of CGI and not the other way around. For this author, CGI is merely another tool at the disposal of filmmakers and it is up to them how they use it (218). This study ultimately aims to give further evidence to Bordwell (2006) and McClean's (2007) claim that narrative retains its importance over spectacle despite the overt use of CGI in Hollywood children's films.

This literature review on the subjects of narrative and CGI also touches on the tension between reality and realism. It was discussed earlier that Lefebvre and Furstenau (2002) focus on the notion of Bazinian realism while discussing CG composite images. They address the ability of digital composite images to create spatial continuity in scenes without editing, which means several characters and actions can be shown within the same shot, thus avoiding Bazin's *montage interdit*. The authors point out that CGI composites are deception in the sense of Bazin's conceptualization, but it is deception used to make the story of the film more realistic and believable. The authors acknowledge this glaring contradiction in Bazin's work.

With this contradiction in mind, there is an interesting parallel that can be drawn between Mak (2003) and Lefebvre and Furstenau's (2002) reading of Bazin. Although made many years apart, both Mak and Bazin seemingly argue for the purity of the medium of film. Both suggest that the use of technology detriments film in one way or another. Lefebvre and Furstenau (2002) cite Bazin as arguing against composites on based on moral grounds, while Mak suggests a degradation in narrative progression due to the use of digital special effects. There is a certain panic over purism that can be found

to closely follow technological innovation in any medium. It is useful to acknowledge this pattern along with the notion that it is not the first nor last time that technology will be viewed as a threat to the medium of film.

In subsequent chapters, film analyses will allow us to examine and elaborate on the concept of emotional experience and the related role of CGI in creating fictional realism. In relation to the subject of the tension between reality and realism that this literature review brings up, it will ultimately be shown that belief in the fictional reality of narrative events is achieved through an integration of CGI that respects realism.

The next section of this study will bring this information to bear on a film analysis of several movies that fall into the underexplored category of contemporary children's films that utilize CGI.

Chapter 3: CGI and Narrative Climaxes

During a discussion of classical Hollywood narrative in the literature review chapter, the typical paradigm for story structure was addressed. It was stated that narrative conflict will intensify and build in a pattern of rising action. Scenes depicting this escalating conflict are linked to each other through a cause and effect relationship. This typically builds towards a climax where the protagonist and antagonist face each other in a battle with one side emerging as the winner. (Gianette and Leach, 2005: 40). The good versus evil climax is pivotal in narrative films because it is what the conflict and tension builds towards. Since this part of a film is so important to the narrative, it could potentially be interesting to examine how CGI functions at the moment when protagonist(s) and antagonist(s) square off for the final culminating battle in a film. This is why the analysis section of this study will begin with a look at the pertinence of CGI through a close reading of some specific climactic action scenes that crucially mobilize a large amount of CG effects.

The type of CGI that will be examined is fantastical CGI as it corresponds with the definition given by McClean (2007). This covers effects that are "…images of astonishing qualities and realize the impossible to the highest standards of perceptual realism" (89). This type of CGI is the focus of this study because of its spectacular nature. As was discussed in the literature review, some theorists like Mak (2003) portray narrative and spectacle as existing in opposition to each other. Since this study examines narrative in light of the use of CGI, it is integral that the CGI examined is spectacular in order to comment on the spectacle/narrative divide. Furthermore, this category of CGI's characteristics (astonishing, realize the impossible, and perceptually real) are more

objective than those of Mak's (2003) classification of overt CGI (visibly and audibly apparent). Therefore, McClean's (2007) categories have more stable definitions, which make them more useful for film analysis.

The following analysis will look to explain the relationship between fantastical CGI and narrative that goes beyond the spectacle versus story dichotomy that theorists like Mak (2003) have presented. Through a close reading of these climactic action scenes it will be shown that fantastical CGI can be spectacular while still allowing the progression of the narrative. By incorporating ideas from Lefebvre and Furstenau (2002) it will be suggested that sometimes CGI even enhances the narrative through eliciting emotion and promoting belief in the fictional reality of narrative events. This study intends to show how innovative use of traditional film techniques can be used to help these films achieve realism in the Bazinian conceptualization. A hierarchy of the innovativeness in the use of conventional film techniques among the films will also be established as a way to show connections between them. A major goal of this chapter will ultimately be to demonstrate how the main contribution of CGI in children's films to the larger picture of film is the intensification of Bazinian realism by showing several characters and actions within the same shot, thus fulfilling Bazin's conditions for *montage interdit*. A further aim will be to give evidence to Lefebvre and Furstenau's (2002) interpretation of Bazin's argument that the emotional experience of believing in the fictional reality of narrative events is central to the medium of film (84).

Before analysis of these climatic action scenes can occur it is integral to first lay the foundation with background information on the five films to be analyzed. The

following section will outline some reviews on the films with specific consideration given to critique of CGI.

Critical reception

This first section will provide contextualization essential to conducting a thorough film analysis. Each of the five films chosen for analysis will be discussed in terms of film reviews. The summaries of film reviews are important background knowledge for this analysis because they offer contextualizing opinions on diverse aspects of the films. In this case, there will be a focus on trends among reviews such as textual comparisons to books and films and the Christian subtext in a few of the films. This section will also include an examination of reviewer commentary on CGI in each of the five films.

There are several interesting commonalities among reviews of the films under examination. One similarity is reviewers' acknowledgement of the literary sources these films are based on. *The Chronicles of Narnia*[14] was found by some reviewers to be faithful to the literary source material. Conversely, *The Golden Compass*[15] was criticized for not being of as high of a caliber as the book it was based on. *Inkheart*[16] received mixed reviews with one critic calling it an "overstuffed adaptation" (Chang 2009), and another calling it a "vivid, super-serious, sometimes lurid adaptation" (Hornaday, 2009). In reviews of *Harry Potter and the Philosopher's Stone*[17] many reviewers commented on how director Chris Columbus undertook the task of adapting the popular novel into a film. For example, Schwarzbaum (2001) remarks, "Columbus' intrinsically American-style polished fidelity mixes with Rowling's intrinsically English-style eccentric

[14] $291,710,95 North American gross (the-numbers.com).
[15] $70,107,728 North American gross (the-numbers.com).
[16] $17,303,424 North American gross (the-numbers.com).
[17] $317,557,891 North American gross (the-numbers.com).

storytelling well enough to create an accessible movie built to satisfy readers, welcome novices, and support sequels." Not all reviewers had a positive opinion of the director's rendering of the book. Aside from the directing, some reviewers found the film's transition from book to film a little too literal. Critics like Schwarzbaum (2001) and Mitchell (2001) commented that the film may have followed the book too closely, leaving little room for originality or surprise. When comparing reviews of *Harry Potter* with other films mentioned here, it becomes obvious that faithfulness to the text is a major issue of concern. This is most likely because the literary source for this film has an arguably larger, more contemporary readership base than any of the other books. The filmmakers had the almost impossible task of pleasing the tastes of the many readers that have formed a cult following around this book series.

Another trend evident in reviews on these films is to compare them to other CGI-rich movies like other films studies in this analysis or *The Lord of the Rings* series.[18] Several of these comparisons are made on the basis of scope. While reviewers leave the meaning of this term vague, it seems like an appropriate topic for discussion considering the largely epic nature of these children's fantasy films. Puig (2005) compares *Narnia* and *Lord of the Rings* and notes similarities in "epic scope" and "elaborate battles", but finds *Narnia* less violent overall. When comparing *Narnia* to *The Lord of the Rings*, Ebert (2005) makes an interesting observation about the difference in scope. Ebert (2005) comments that the events in the *Narnia* film, regardless of how fantastical they may be, take place on a more human, earthly scale than those in *Lord of the Rings*.

[18] In these comparisons, *The Lord of the Rings*, *Narnia*, and *Harry Potter* are almost always found by reviewers to be superior films, with the exception of Ebert's (2007) review of *Golden Compass*, which he finds to be "…a darker, deeper fantasy epic than the 'Rings' trilogy, 'The Chronicles of Narnia' or the 'Potter' films. It springs from the same British world of quasi-philosophical magic, but creates more complex villains and poses more intriguing questions" (Ebert, 2007).

Chang (2008) makes a similar observation about smaller scope when comparing *The Golden Compass* to *The Spiderwick* Chronicles. He states, "But though it arrives with less fanfare than 'Compass' did, 'Spiderwick' is a superior movie in almost all respects: less grandiose in scope, but richer in emotion and humor, and boasting visual effects appropriately scaled to the more intimate tenor of the production." According to reviewers, a scaled down scope can be a positive attribute in these epic fantasy films. This could potentially be because a smaller scope makes these children's films more relatable and easily understood by their younger audiences.

Another subject critics are keen to discuss is the Christian subtext of some of the films and their literary sources. Reviews of *Narnia* discuss the often-cited Christian subtext of the book, and how it appears in the film. Ebert (2005) explains that this is most clearly seen in the character of Aslan, who could be interpreted as a Christ-figure when he selflessly dies for Edmund's transgressions, and is later resurrected.[19] Puig (2005) acknowledges this as well and adds that this parable may go unnoticed by children, but will be picked up on by their parents. This is an interesting split in the child and adult audiences that might be useful if one were to theorize on their different forms of spectatorship.

Much like *Narnia*, *The Golden Compass* drew attention because of its religious undertones. However, the key difference is that *The Golden Compass* has been cited as a critique of Christianity rather than an allusion to it as was suggested in the reviews of

[19] McCarthy (2005) suggests that the religious element of the film may help to attract audiences who enjoyed the religious message in Mel Gibson's *The Passion of the Christ* (2004). McCarthy (2005) refers specifically to Aslan's death and resurrection. He states, "The lion's eventual resurrection is crucial to the Christian overlay in Lewis' work, and while this element may help "Lion" lure Gibson's passionate audience to untold upward B.O. effect…" However, he adds that the film does not stress its religious parallels (McCarthy, 2005).

Narnia. This lead Dargis (2007) to draw attention to the fact that the film was heavily criticized for its take on religion in its depiction of the Magisterium, viewed as a metaphor for the Catholic Church. On the other hand, legendary film critic Ebert (2007) suggests that the theological quandaries of the novel are irrelevant for a family film such as this one. It is difficult to agree that one of the major themes of the source material for this film is irrelevant since the film is based on the novel. The two are very much related to each other, and cannot be separated, regardless of changes made to suit the predominantly family audience that watches the film.

Of greater relevance to this study are the reviewers' comments on the subject of CGI. In some cases the topic is a source of contention among reviewers. In other cases it is a glaringly under addressed topic. In any of these instances, examination of the discussion of CGI will help give contextualizing perspective on the subject before delving into a film analysis.

In his review of *Narnia*, Hunter (2005) comments on the film's CGI and narrative. He states, "For kids, the pleasure will be in some of the best special effects of the year. And for both, the overarching endearment will be a narrative, which speeds through its two-hour-plus running time" (Hunter 2005). In this instance, McClean's (2007) overarching argument in *Digital Storytelling* seems applicable. Her argument is essentially that a good story is fundamental in making a film, and no amount of CGI can make a bad story good or a good story bad. To McClean (2007), CGI is merely a storytelling tool that can add to the narrative of a film, and in the case of *Narnia*, it seems to have made an enjoyable narrative that is easy for the spectator to follow.

A subject of commentary for several reviewers is to make a connection between CGI and the actors in the films. For example, Chang (2009) critiques Brendan Fraser's acting in *Inkheart* in relation to CGI when he states, "The sole American in a cast of mostly British thesps, Fraser doesn't vary his game much, essentially reacting to elaborate special effects as he did in 'Journey to the Center of the Earth' and 'The Mummy' movies" (Chang, 2009). In this case, an actor's performance is seen as poor when considered in relation to CGI. Similar observations are made by reviewers of *Narnia*, but these critiques comment more on the impressiveness of the CGI than the unimpressive performance of the actors. Ebert (2005) comments that the CG characters in *Narnia* look as real as the real-life actors, while Hunter (2005) from *The Washington Post* suggests that they actually perform better than the human actors. Hunter's (2005) comment is an arguable position considering the CG characters are cast opposite virtually unknown and inexperienced child actors. The reviewer's comments scratch the surface of the emerging debate surrounding CG performance and whether or not it constitutes acting.[20]

Puig (2005) also finds the CG characters more noteworthy than some of the real actors and perceives them as "…beautifully realized and enhanced by the actors lending their voices." Puig (2005) specifically holds up Liam Neeson's voicing of Aslan as an example of this. Gleiberman (2005) shares similar sentiments when he states, "For once, a computerized beast looks like he's talking, and he's voiced, by Liam Neeson, in velvet seductive tones of lordly compassion." McCarthy (2005) does not offer quite as high praise for the CG lion, and finds the White Witch's wolves to be superior CG characters of the film. He states,

[20] There is a relevant *Los Angeles Times* article by Rachel Abramowitz on this subject as it relates to actor performance in *Avatar (Cameron, 2009)*. See Works Cited for reference.

> Compared with the wolves, the imposing Aslan looks somewhat less lifelike at first; his expression looks a bit posed and the waviness of his main and other hair isn't entirely naturalistic. But one soon accepts him, as his movements carry a deliberate composure and Neeson's sonorous readings convey a steady dignity. (McCarthy 2005)

Here, he suggests the viewer's ability to reconcile with what he sees as the inferior CG rendering of the lion through inevitable acceptance. McCarthy's (2005) comments could be related to the "belief in" versus "decipherment of" paradigm that some film theorist use to describe the spectatorial position on CGI. Jessica Aldred (2006) explains that spectator engagement with CGI is characterized by an oscillation between believing and questioning the authenticity of the CG image (158). It seems as though McCarthy begins by trying to decipher the authenticity of Aslan, but then oscillates to believing in the image.

The Golden Compass is compared to films that also use a great deal of CGI, however, the use of CGI in this film is not mentioned very often in reviews. When it is mentioned it is usually in terms of a decorative or ornamental nature. For example, McCarthy (2007) says the following of the film's CGI, "Evoking the technological and sartorial world of the 1930s, the visuals, decked out with almost constant CGI adornments, provide a constant feast for the eyes. Creatures, especially the bears, are strongly rendered, and the enterprise lacks for little in production values." The CG bears are a high point of the film for many reviews on the film. Critics from *Entertainment Weekly*, *Variety*, and *The New York Times* make mention of enjoying the character of Iorek and a desire to see more of him. At the very least this shows that a CG character

can still be endearing and captivating. It is surprising that critics do not comment more on the vast amounts of CGI in this film. The CG ice bears are certainly impressive and in the foreground of the story, but the reviewers overlook the CG-rendered golden compass, Magisterium buildings, imaginative forms of transportation, flying witches, daemons, and vast icy landscapes of the north. In this film, CGI seems to be an integral part of the *mise-en-scène*, rather than an ornament to the set.

Similar comments can be made about the lack of reviewer comment on the subject of CGI in the film *Inkheart*. This could potentially be because reviewers found many faults in the film and this took precedent over consideration of visual effects. Alternatively, the lack of discourse on CGI in these reviews could be attributed to the recent release date of *Inkheart*. Perhaps reviewers have become so accustomed to spectacular effects that they no longer find them outstanding enough to comment on. Whatever the reasoning, like with *The Golden Compass*, reviewer's comments on the CGI in this film are limited to its ornamental nature. Morris (2009) laments, "The only exciting set piece is from the effects department, and it's a giant charcoal cloud that appears during the film's climax and requires Maggie to do public reading." The indifference of reviewers towards the film's CGI could be interpreted to mean that no one found anything remarkable enough to comment on except for The Shadow in the final scene.

The films in this study utilize computer-generated effects to visualize the fantastical worlds in which they take places. Reviewers of these films pick up on the delicate balance these effects must strike between realism and fantasy. Some argue that particular films do this rather well, while others claim that some films struggle to find the

right balance. Ebert (2001) makes an interesting point about the level of CGI realism as it relates to the fantastical subject matter in *Harry Potter*. He states,

> Our first glimpse of Hogwarts sets the tone for the movie's special effects. Although computers can make anything look realistic, too much realism would be the wrong choice for "Harry Potter," which is a story in which everything, including the sets and locations, should look a little made up. (Ebert, 2001)

This is an interesting view considering the realism and "belief in" versus "decipherment of" discussion previously mentioned in relation to the character of Aslan in *Narnia*. Perhaps with less realism comes less concern over deciphering whether or not the image is authentic because the spectator knows it is "made up". Therefore, the spectator is free to move more towards the belief end of this dichotomy. It is possible to suggest that the spectator knows the world of the film is not real so realism becomes less of a concern. However, belief in the image and the narrative still remain pertinent.

Ebert (2001) also comments on the exuberance and "plausible look" of the film's Quidditch scene. Other critics, however, find the CGI in this scene inadequate. McCarthy (2001) observes that the Quidditch match scene "features an off-putting CGI feel, as the camera moves are far too precise and measure and the backgrounds look too clean." Surprisingly, this is the opposite of the lesser realism that Ebert (2001) comments on. Where McCarthy (2001) sees an over abundance of precision and cleanliness, Mitchell (2001) sees sloppiness. He says the Quidditch scene, " …has all the second-rate sloppiness of the race in 'Stars Wars -- Episode 1: The Phantom Menace.' It's a blur of mortifyingly ordinary computer-generated effects" (Mitchell, 2001). These differing views on CGI in the same scene only serve to underline CGI's subjectivity. It is also

further justification not to use Mak's (2003) categorizations of overt and covert CGI. The critics discussed here might have a difficult time if they were forced to categorize the CGI in this scene based on whether or not it is apparent or noticeable (Mak, 2003: 39).

Reviewers of *The Spiderwick Chronicles* are equally as divided on the subject of the CGI's balance between realism and fantasy. Puig (2008) from *USA Today* finds that the children and their personal family problems distract from the wonderment of the CGI. She observes, "We're supposed to be agog at the fantastical creatures and dazzling special effects. But the more wrenching story of disillusioned children nags in the background, distracting from any enchantment" (Puig, 2008). She later adds that, "…fantasy and reality fail to coexist comfortably" (Puig, 2008). Hornaday (2008) agrees that something is lacking with the film's CGI and expresses this when she says the film is, "frantic with incident and hectic with computer-generated effects, including buckets of special Nickelodeon-style slime for the gooey green goblin blood." On the other hand, Chang (2008) from *Variety* praises the film's use of computer-generated effects by saying,

> The visual effects have a subtle, rough-hewn quality in keeping with the moody, autumnal reds and browns of Caleb Deschanel's cinematography. Pic builds steadily in visual grandeur, enveloping rather than bombarding the audience; late in the film, the sight of a character engulfed in pixie dust delivers a gorgeous, ethereal frisson. (Chang, 2008)

A possible explanation behind these critiques is that perhaps Puig (2008) and Hornaday (2008) had difficulty appreciating the nuances of real and fantastic in this film because it takes place in a much less fantastical setting than any of the other films examined here. The CG effects certainly stand out more against a domestic backdrop when compared to

those shown to take place in a school for wizardry or during a journey to a secret arctic research facility.

Good versus evil: The final showdown

Now that contextualizing information regarding critiques and reviews of these five films has been established, an analysis will look at the pertinence of fantastical CGI through a close reading of some specific climactic action scenes that crucially mobilize a large amount of CG effects. The categorization of fantastical CGI will be informed by McClean's (2007) definition of images that appear perceptually realistic but realize the impossible (89). The analysis of these climactic action scenes will also be informed by Lefebvre and Furstenau's (2002) article, "Digital Editing and Montage." The following analysis will search for explanation of the relationship between CGI and narrative that goes beyond the mutually exclusive spectacle versus story characterization that theorists like Mak (2003) have presented. This study intends to show how innovative use of traditional film techniques can help these films move towards realism in the Bazinian conceptualization. The degrees to which this is achieved vary, so a hierarchy of innovative to conservative narrative uses of CGI will be established. The ultimate aim of the analysis in this chapter will be to give evidence to Lefebvre and Furstenau's (2002) reading of Bazin's claim that the emotional experience of believing in the fictional reality of narrative events is more important than film narrative (84).

In this chapter, a summary of each film's plot will be followed by an analysis of narratively climactic action scenes. These plot summaries will provide an important understanding of the story and help place the scenes analyzed in this study within the plot of the film. In addition to an overall plot summary, a more thoroughly detailed

description of each scene to be analyzed will contextualize the scene within the film's narrative.

The Chronicles of Narnia

The Chronicles of Narnia: The Lion, the Witch, and the Wardrobe is a children's fantasy epic based on the C.S. Lewis Novel of the same name. It focuses on the four Pevensie children, Peter (William Moseley), Susan (Anna Popplewell), Edmund (Skandar Keynes), and Lucy (Georgia Henley) who are sent away from their war-torn home in Britain to stay with an eccentric professor in a stately, country-side manor. Once there, the children stumble upon another world called Narnia via a wardrobe. The land is populated by talking animals and ruled by the evil White Witch who wants to rid Narnia of its young new visitors as they are part of a prophecy that foretells the end of her reign. The White Witch manages to charm Edmund into helping her cause. The remaining children join forces with a lion named Aslan (voiced by Liam Neeson), the former and rightful ruler of Narnia. With the help of a small army of mythical creatures, the children and Aslan win Edmund back and defeat The White Witch and her army. Rightful rulership of Narnia is returned to Aslan, who hands it over to Peter, Susan, Edmund, and Lucy by crowning them kings and queens of Narnia. Many years later as young adults they come across the portal through the wardrobe to their old world. They stumble through it to find that no time has passed since the day they first entered Narnia.

The culmination of the conflict between the White Witch and the children is the first scene to be considered in terms of narrative climax and the use of CGI. This narrative crux occurs when Aslan kills the White Witch. The conflict between the children and the White Witch builds towards the film's large culminating battle scene

between the Witch's army and Aslan's army. The stakes are high as the winning faction of this battle will have control over the kingdom of Narnia. With Aslan having traded his life for Edmund's, the children must head into battle without their leader. Although vastly outnumbered, they manage to hold their own in the fight. When the White Witch goes after Edmund, Peter goes after the Witch to save his brother. The two engage in sword combat. Much to the surprise of Peter and the Witch, the resurrected Aslan then shows up with the Witch's freed prisoners as reinforcements. The reinforcements, along with Aslan, storm the battle ground. The Witch pins Peter's arm to the ground by stabbing it with her sword, and is about to kill him with another sword. All of a sudden, Aslan leaps over Peter and pins the Witch to the ground, letting out a roar before he kills her. Other members of Aslan's army whiz by Peter in a blur as Peter watches Aslan and realizes the Witch is dead.

The part of this battle sequence that will be analyzed is the face-off between Peter and the Witch and then Alan and the Witch. There are two interesting sequences within this scene that involve CGI. The first is the powerful leap by Aslan onto the Witch that includes a shot reverse shot that shows the two looking at each other while Aslan has the Witch pinned. The shots are as follows:

Shot 1: A close up of Aslan's face as he leaps at the Witch.

Shot 2: A reverse shot close up of the Witch's surprised reaction.

Shot 3: A medium shot that shows Aslan leaping at the Witch, and another one after that shows a long shot of a CGI Aslan jumping on a CGI White Witch.[21]

Shot 4: Shows the lion on top of the Witch as she struggles to grab her sword.

[21] It is not overtly obvious that the Witch is computer-generated. However Adamson says this shot is CGI in the director's commentary.

Shot 5: A close up of Aslan's face as a calm expression falls over it.

Shot 6: A reverse shot of the Witch's face with an eerily tranquil expression.

Shot 7: The shot shows Aslan again as he roars, opening his jaws wide.

The shot reverse shot is a staple of classical continuity editing. Through it, the audience logically concludes that the characters are looking at each other in chronological time and shared space. It has become such an embedded trope of Hollywood cinema that most spectators no longer consciously register its narrative significance. In this instance, it has considerable narrative significance as this is the moment the Witch accepts her fate to be killed by Aslan. This can be seen in the look of serenity on her face before Aslan lets out a roar and kills her. Aslan's composure before he kills her also shows that this is not a revenge killing. The final clash where the hero kills the villain is shown to be more about inevitability and fate than who is the victor. Just as Aslan killing the Witch echoes with inescapability, the two sets of shot reverse shot sequences that eyeline match Aslan and the Witch (first when Aslan jumps at the Witch and then before he kills her) underline this message through the shot structure of the scene. This ending is essential to the narrative, as it is an appropriate end to a conflict that was thrust on the Pevensie children. They seemed to not have any say over whether or not they went to war. Similarly, in the end, the Witch did not have any say in whether or not she was killed by Aslan. Appropriately, it is Aslan who kills her and not Peter.

All of this important narrative work is done using a computer-generated character to represent the forces of good. As was discussed in the previous chapter, Mak (2003) argues that overt CGI temporarily suspends the narrative of a film in order for the spectator to take in the CGI spectacle. For the author, moments of visually

overwhelming CGI distract the audience from concentrating on the main plot and force them instead to concentrate on being audio-visually stimulated (41). As was pointed out earlier, Mak's (2003) distinction between overt and covert CGI is highly subjective. Mak (2003) defines overt CGI as digital special effects "…visibly and audibly apparent in a film narrative" (39). Although the definition is subjective, images of Aslan in this climatic scene can arguably be classified as overt CGI. For example, in the critical reception portion of this chapter, reviewers Puig (2005), Gleiberman (2005), McCarthy (2005) all acknowledge that Aslan is rendered on screen through the use of CGI.

According to Mak (2003), the overt CGI of Aslan in this scene should cause narrative suspension because it forces the viewer to focus on audio-visual stimulation (41). However, it seems as though at no point is the narrative suspended in order to provide the spectator a moment to marvel at Aslan's realistic musculature as he jumps or roars. Of course, this sort of aesthetic amusement may be a source of pleasure for some spectators, but it is unable to detract from the actions Aslan takes. In *Digital Storytelling*, McClean (2007) suggests that spectacular CGI can provide a beat of pacing "…so that the emotional load or intellectual weight of a narrative moment can be experienced by characters within the narrative and/or by audiences" (71). This sequence of *Narnia* seems to fit this notion quite well. The intellectual weight of the fatefulness with which Aslan kills the White Witch is experienced by the characters (and potentially the audience) in this scene through the use of the shot reverse shots of the characters' faces. The spectacular nature of Aslan's leap and his roar can only serve to enhance the emotional response from spectators. Emotional engagement of the spectator will be discussed in more depth in the next chapter. What is important for now is that the

spectacular nature of CGI paces the sequence in such a way that the weight of the emotional load of Aslan killing the Witch can be felt by the audience.

The next moment of significance involving CGI in this scene comes while Aslan is in the process of killing the Witch. In one shot, Peter gets up and sees Aslan hunched over the Witch. Combatants behind Peter start to run past him in a blur of slow motion. In the next medium shot of Peter, more Narnians can be seen running past Peter in a CGI blur. Although it is blurry, many of the CG characters from the film can be made out, revealing this effect to be CGI. The next shot is taken from behind Peter as Aslan turns around after killing the Witch and the CG blurs filter around him at the sides of the frame. Peter and Aslan also move in slow motion. The next shot is a medium shot of Peter, still with CG blurs around him at the sides of the frame. Next, a tighter shot taken from over Peter's shoulder shows a medium shot of Aslan. A close-up of Aslan's face shows him saying, "It is finished." Then a reverse medium close-up of Peter's face is seen as he heaves a light sigh.

At first it may seem like this use of CGI upholds Mak's (2003) suggestion that overt CGI leads to a viewer focus on the spectacle rather than narrative. The narrative could be seen as suspended because the forward movement of time is slowed down through extensive use of slow motion. However one must consider that the focus of the scene is not on the blurred CG characters or even Aslan. Like the last example from this scene, this portion of this sequence can be read as a moment of realization. Stylistic elements of this scene serve to focus the viewer's attention on the interaction between Peter and Aslan. This includes the visual abstraction from the CG characters around Peter and Aslan as well as the lowering on the soundtrack of the volume of the sound

effects, while raising the volume of the musical layer of the soundtrack. This can be interpreted as a character accepting his fate as Peter realizes the conflict is over and he was not the one to kill the Witch. However, as was previously suggested, this was not Peter's battle to begin with. He seems to acknowledge this all of this with a gentle sigh. It is a dramatic end to the film's narrative conflict that gives the spectator ample amount of time to consider the weight of the narrative events that occur.

The use of CGI to render this scene seems to fit the model of sublime usage of CGI as outlined by McClean (2007). She states,

> …this shows us how moments of spectacularity may be less about the technology and instead about the concept and the emotional response being sought or conveyed. This portrayal of fantasy elements, statement-of-mind sequences, and emotional-response cues…uplift us from the narrative without breaking it or removing audiences from the context it offers. (226)

Through the use of CGI, this moment in the film seemingly lets the viewer into the mind of Peter. It allows them time to contemplate his thoughts and emotions just after the climatic death of the villain. It is a moment that adds to the narrative rather than detracting from it.

It is important to point out that CGI is conventionally used throughout this scene. That is, it never questions classical film narrative or conventional editing techniques like the classical technique of shot reverse shot. In this instance, CGI supports formal and narrative conservatism and its spectacular nature is primarily ornamental. If CGI has a revolutionary potential in regards to film narrative as some may claim, it is not being

used here. In this instance, CGI is only used to uphold narrative conventions already in place.

The Golden Compass

The use of CGI abounds in the 2007 film, *The Golden Compass*. In fact, the film won the 2008 Oscar for Best Achievement in Visual Effects. The film is set in a parallel world to the viewers' own. One of the major differences in this world is that everyone is accompanied at all times by an outward reflection of their soul called a daemon, which takes the form of an animal. When people are children, their daemon can shape-shift into the form of many different animals, but as they age it will eventually settle into one form. The protagonist of the story is an orphan girl named Lyra (Dakota Blue Richards) and her daemon, Pantalaimon (voiced by Freddie Highmore), who usually takes the form of a cat, but has not yet settled on one form. One day Lyra is given an opportunity to go on a Northern expedition adventure with Mrs. Coulter (Nicole Kidman), a beautiful and mysterious friend of the college where Lyra has been raised. Before she leaves the college, Lyra is put in trust of a rare truth-reading device called an alithermometer.

Once Lyra moves in with Mrs. Coulter she realizes the woman is not all she appears to be. Lyra discovers Mrs. Coulter is part of an organization that has been kidnapping children and performing experiments on them in the North. Lyra escapes from Mrs. Coulter and begins a voyage northward to save the captured children. With some help from some Gyptians (a nomadic race of people bearing similarities to Gypsies), an air balloon pilot, witches, and a giant warrior ice bear named Iorek, Lyra makes it to the experiment facility in the North. She discovers that researchers are performing cruel experiments that sever the bond between child and daemon in a process

called intercision. Mrs. Coulter finds her at the facility and informs her that she is her mother and the man she thought was her uncle is actually her father. Lyra then destroys the device being used to perform intercisions, setting the facility on fire. During the distraction, Lyra and the captive children escape the research facility but become involved in a violent stand-off with guards outside the building. All of Lyra's companions show up to defeat the guards. Lyra's faction wins and everyone begins the journey home, except a few of her companions who decide to take Lyra to her father.

The final climactic battle between good and evil forces in *The Golden Compass* comes after the eventful escape from the Bolvanger facility orchestrated by the film's young heroine. Lyra begins to plot this escape shortly after she arrives at the facility, but is caught by attendants and put into the intercision machine. Just before the machine is about to separate Lyra and Pan, Mrs. Coulter saves her. Upon waking, Mrs. Coulter reveals that she is Lyra's mother. Lyra escapes by knocking Mrs. Coulter unconscious with a spy fly. She then destroys the intercision machine. The machine erupts into flames and the children escape the facility in the chaos. Once outside the facility, the children come face-to-face with an army of Tartar guards and their wolf daemons. The battle begins as one of the wolf daemons leaps to attack Lyra. It is stopped just in time by Iorek as he arrives to the fight. Iorek takes on several Tartars as the children run away. The Tartars not engaged in combat with Iorek chase after the children. One catches up to Lyra and is about to strike her with his sword when Lyra is saved again, this time by Serafina Pekkla, who stabs the Tartar. The rest of Serafina's witch clan arrives and starts killing Tartars and their daemons with bows and arrows. At this point, some of the Tartars are able to restrain Iorek with ropes. Just then, the Gyptians arrive and begin

fighting the Tartars. Lee Scoresby arrives in his air balloon and shoots a Tartar just as he is about to execute Iorek. He also shoots the Tartars restraining him. With Iorek free, the tide turns in favour of the side of good and the Tartars are defeated.

As is the case with any epic battle scene, this scene is vast in scope. Elements of the scene that are interesting to consider in terms of the interplay between CGI and narrative are the multiple overhead shots of the chaotic battlefield. The first one comes shortly after the battle starts. It shows a high angle overhead shot of the children going in one direction while the Tartars split up to catch the children and fight Iorek. Another one occurs after Serafina and her witch clan fly into the battle as reinforcements. The third and fourth overhead shots are eyeline matches for Serafina as she notices a Tartar beating a witch with his gun and flies in to attack him. Finally, there are two more aerial shots when Lee Scoresby arrives in his airship and shoots the Tartars trying to restrain Iorek. Firstly, these shots allow the spectator to observe the many different CG and non-CG elements of the scene. One can see the vastness of the battle and its many Tartar, child, witch, Gyptian, and daemon participants. The use of CGI not only allows all of these elements to be rendered more simply than staging an elaborate battle scene in the tundra, but CGI technology makes it possible to add CG daemons, flying witches, and Iorek.

Furthermore, three of the overhead shots come after the aerial arrival of reinforcements. The aerial shot after Serafina arrives lasts a full ten seconds. The shot sweeps over the battle scene, mimicking the flight path of a witch. The next overhead shot uses continuity editing to suggest Serafina's point of view. The use of zoom in the second overhead shot indicates that she is flying in to help one of her witch clan members. In the overhead shots as Lee flies over the battle in his balloon, the camera is

positioned behind him and his shotgun in the balloon. The camera slowly moves over the scene while staying just behind Lee. These shots are all spectacular, however they do not suspend the narrative in favour of aesthetics that are meant to be marveled at by the spectator as Mak (2003) would suggest is the case with overt CGI (41). In these instances, the spectacle and the narrative support each other. That is, the CGI in these scenes is an integral part of shots that give spatial information on the battle scene, while classical film techniques indicate the arrival of reinforcements. At the same time, the reason for the spectacle is warranted within the narrative. It is not spectacular CGI without narrative purpose, but it is nonetheless spectacular.

Another interesting CG element of this scene is when characters' deaths are represented by a spark-filled explosion of their daemon. In this instance, CGI could be seen as helping to deliver the narrative information that a character has died without as much violence and brutality as showing their death would involve. This is a very useful tool for a children's film that has to sensitively deal with subjects like death in order to be considerate of the young minds in the audience. Not a drop of blood is visible in this scene even though characters are stabbed and shot. This use of CGI may be fantastical, but as McClean's (2007) explanation of the category suggests, it is always reasonable within the diegesis of the film (89). It is explained early on in the film that whatever happens to a person will also be experienced by their daemon and vice versa. The shimmering explosions thus signify human and daemon death. These explosions also help the spectator to see when the battle turns in favour of the children/Gyptian/witch/Iorek faction. This becomes clear after Iorek is freed and the shots that follow show those from Lyra's side attacking Tatars and the Tartar's wolf

daemons extinguishing. This montage signifies the final surge that wins Lyra and her friends the battle. The end of the battle is depicted with a medium long shot of Iorek surrounded by dead Tartars as the final one standing falls to his knees. The camera zooms in to a medium close-up and a cloud of dead daemon sparks fly up beside Iorek. Mak (2003) has suggested that overt CGI like the daemon sparks suspend the narrative by putting a focus on spectacle. In this instance CGI functions as a sparkling spectacle to behold, but it also delivers important narrative information on death in a way that is not traumatizing to children spectators.

In contemplating the CGI in this film it is important to consider how it compares to the use of CGI in other films. As was pointed out, the use of CGI in *Narnia* is largely conventional in terms of supporting classical Hollywood film narrative and technique. *The Golden Compass* somewhat differs in this respect. The key difference is with space and time continuity. These long shots in this film emphasize the continuity of space and time within the scene, which adds to the realism of the scene. It is relevant here to consider Bazin's notion that the emotional experience of believing in the fictional reality of its narrative events is more important than the narrative of a film (Lefebvre and Furstenau's, 2002: 84). In the case of *The Golden Compass*, CGI allows for long shots that establish space and time continuity, which contributes to the spectator's ability to believe in the fictional reality of the narrative event of the battle. Similar conclusions can be drawn from the fiery daemon explosions in this scene. They are a clever way to depict violence and death in a children's film that serve the purpose of controlling an emotional response from the spectator. They have the potential to evoke fear and excitement in the spectator as lives are lost in the battle between good and evil. While doing so, they

control that emotional response in children by not eliciting an unfavourable emotional response like overwhelming fear or grief. Through the use of CGI, filmmakers can control the emotional response they draw from their young audience.

Unlike with *Narnia*, the innovative potential of CGI is experimented with in this scene. Film reviewer McCarthy's (2007) suggestion that the CGI in this film functions as little more than an adornment may have been more incorrect than one might have originally thought.

Harry Potter and the Philosopher's Stone

Harry Potter and the Philosopher's Stone is yet another film that brings a book to life on the screen with the help of CGI. Based on J.K. Rowling's *Harry Potter and the Philosopher's Stone* (1997), the film introduces the audience to a young boy named Harry Potter (Daniel Radcliffe). Harry is an orphan who lives with his aunt, uncle, and cousin who treat him more like a servant than a member of the family. This is until Harry finds out his parents were actually wizards that died trying to save him from a dark and powerful wizard named Voldemort. Harry leaves to attend the Hogwarts School of Witchcraft and Wizardry. Once at Hogwarts Harry makes friends with two young wizards named Ron (Rupert Grint) and Hermoine (Emma Watson). The friends begin to investigate a number of strange occurrences going on around them revolving around something that is being hidden deep beneath the school. The children battle trolls, three-headed dogs, and spells to get to the bottom of what is going on. They discover that the philosopher's stone, an eternal life-giving stone capable of turning substances into gold, is being hidden at the school. They believe a Hogwarts instructor named Professor Snape is trying to obtain the stone.

After a set of circumstances arise that would be ideal for someone to steal the stone, the three young wizards go down the trap door where it is hidden in order to stop Snape. They face many enchanted obstacles protecting the stone, and Harry alone makes it to the final room where the stone is housed. To his surprise he finds that Professor Quirrell is the one seeking the stone and has been causing all the trouble at the school. He also learned that the evil wizard Voldemort who killed his parents has been hiding under Quirrell's turban, instructing him on what to do. Harry and Quirrell fight but Harry's touch disintegrates Quirrell, which is later explained is because he is protected by his deceased mother's love. With Quirrell dead, Voldemort's spirit rises from the ashes and flows through Harry, knocking him unconscious. Harry lives, but Voldemort escapes.

The final battle between good and evil in *Harry Potter and the Philosopher's Stone* takes place deep beneath the Hogwarts academy. After figuring out that someone has gone down the trap door in search of the philosopher's stone, Harry, Ron, and Hermione head in after them. They encounter a series of magical spells that they must find their way around. They make it through suffocating plant roots and a room full of flying keys before Ron is injured in a life-sized game of wizard chess. Harry sends Hermione to get Dumbledore for help, leaving himself alone to enter the final room with the stone. Here, he surprisingly finds Professor Quirrell instead of Snape, who confesses to all the mysterious happenings at the school. Harry then meets his arch enemy for the second time when Quirrell takes off his turban to reveal Voldemort has been living off Quirrell in a parasitic form on the back of his head. The only other thing in the room is the enchanted Mirror of Erised, where Harry sees himself with the stone in his pocket.

Wanting the stone for himself to return to his full power, Voldemort sees this and offers to bring Harry's parents back if he shares the stone. Upon Harry's refusal, Voldemort sends Quirrell after the boy. Quirrell chokes Harry and when Harry puts his hands on Quirrell to defend himself, Quirrell's skin burns, cracks, and crumbles and he turns to dust. While Quirrell is reduced to ashes, the spirit of Voldemort flies out of Quirrell's body and flows through Harry, knocking him unconscious.

One of the more interesting aspects of this face-off between good and evil is that the side representing evil is a surprise. This trope sometimes used in storytelling is referred to as a red herring. A red herring is usually someone or something that diverts the audience's attention from the truth, usually by being portrayed as highly suspicious. In this case, Snape is the red herring, diverting the audience's attention to him as the antagonist so no one suspects Quirrell. When Quirrell and Harry finally meet in the last room under the trap door, Harry is forced to recount all the strange occurrences at Hogwarts that he attributed to Snape while Quirrell explains how he is accountable for all of these. As Harry does this, he helps the audience to do the same narrative recounting to re-understand the events now that the red herring is revealed. Bearing in mind Bordwell and Thompson's (1997) view that the audience does the work of constructing the narrative, in this instance the audience would have to do the work of *re*-constructing the narrative with Quirrell in the place of what were thought to be Snape's actions. Although this narrative twist seems to have little to do with CGI, this changes when another layer to the red herring is revealed.

It is discovered during this final confrontation between good and evil that Quirrell was not working alone to cause trouble at Hogwarts. He has been using the back of his

head to play host to a parasitic Voldemort. The CGI used to render Voldemort's face on the back of Quirrell's head could be classified under McClean's (2007) fantastical category of CGI as it believably renders the impossible while attempting to adhere to perceptual realism. At first, Voldemort's face is only shown in the reflection of the Mirror of Erised. However, in a single shot the camera moves from the front of Quirrell's face to the back of his head to show Voldemort and an over-the-shoulder shot of Harry. This shot is relevant to Lefebvre and Furstenau's (2002) discussion of Bazin and the lion scenes in *Where No Vultures Fly* and *Gladiator* previously mentioned in the literature review. Much like the scene in *Gladiator*, this scene shows actors and CGI in the same single shot. The fact that Quirrell, Harry, and the CG Voldemort are all shown in a single shot preserves spatial unity and aids the viewers' belief in narrative events even though they are aware they are fictional (Lefebvre and Furstenau, 2002: 84). The same could be said for when the spirit of Voldemort flows through Harry's body after Quirrell dies. However, this example takes spatial unity one step further. In this instance the real life character and CGI not only share spatial unity, but the CGI has a physical effect on the character by intersecting in physical space and causing the reaction of Harry falling to the ground.

A computer-generated rendering of Voldemort's spirit is shown flowing through Harry in profile in a medium shot, knocking Harry to the ground and flying out of the room. In the past before the advent of CGI, several shots may have been used to imply the same event. Through the use of CGI to render the spirit of Voldemort, this can be visualized in a single shot. Spatial unity is preserved as well as Bazin's conceptualization of realism, so narrative events like these fantastical ones are still believable. Lefebvre

and Furstenau interpret Bazin to argue, "…it is not so much the narrative of a film *per se* that is important, but the emotional experience of the cinema as a system or mode of belief in the 'fictional reality' of narrative events" (2002: 84). In both of these examples, the same narrative event could have been portrayed in many other ways, including ones that do not use CGI. However, the filmmakers use CGI, and do so in a way that remains faithful to the experience of believing in the fictional reality of narrative events. Single, full shots showing real and CG elements together make these uses of fantastical CGI narratively authentic and relevant, potentially allowing the audience to have an emotional response.

Compared with the use of CGI in the previous two films, the use of CGI seems to be slightly more innovative in this scene from *Harry Potter.* CGI allows for multiple actions to be shown within the same shot. In the previous example from *Narnia*, CGI does not seem to have more than an ornamental, aesthetic impact. However, in the instance of *Harry Potter*, the editing of this scene is positively affected by CGI because single shots of action help the spectator to believe in the fictional reality of the film's narrative events. This scene from *Harry Potter* represents an intensification of Bazin realism because several actions are shown within the same shot. *Montage interdit* was described in the previous chapter as Bazain's notion related to a requirement for single framings in order to show character confrontations (Lefebvre and Furstenau, 2002: 83). Even though the images featuring CGI are composite images, they are framed in a way that respects realism and *montage interdit*. Furthermore, as Lefebvre and Furstenau (2002) read Bazin to argue, film is not so much about narrative as it is about the emotional experience of believing in the fictional reality of narrative events (84). With

this in mind, if CGI helps the spectator to believe in narrative events, it is reasonable to argue that the spectatorial emotional response is potentially enhanced. Emotional engagement will be addressed further in the next chapter. For now, it is important to note that while the range of emotions experienced by spectators may vary based on personal subjectivity, it remains fundamental that the emotions are based on belief in a fictional reality.

It is relevant to return to Ebert's (2001) comments on the special effects of this film. The reviewer argues that too much CGI realism would not suit this fantastical film, and that everything should look "a little made up" (Ebert, 2001). The key commonality between Lefebvre and Furstenau's (2002) interpretation of Bazin's argument and Ebert's (2001) argument is that filmic realism is not necessarily the same as reality. According to the argument here, film has a fictional reality of its own that is based on the belief in narrative events. In the example of *Harry Potter*, CGI allows for single shots of action that help maintain the fictional reality of narrative events.[22] Even if the CGI looks "a little made up" as Ebert (2001) suggests, the way it is filmed depicts the realism of narrative events within a fictional reality. According to Lefebvre and Furstenau's (2002) reading of Bazin's argument, enhanced belief in the fictional reality of narrative events means an enhanced emotional experience for spectator. With the preceding arguments in mind, it becomes apparent that the filmmakers of *Harry Potter* took advantage of the potential CGI has to affect the film watching experience through the innovative use of CGI within single shots of action.

[22] These shots are certainly not the long takes of French New Wave cinema, but they are noticeably longer than the rapid editing typical of cinema meant for the post-MTV generation. Bordwell (2006) argues that the average shot length in Hollywood films is decreasing across all genres (121). *Harry Potter* makes an interesting case for argument against this trend.

The Spiderwick Chronicles

Like many children's fantasy films, *The Spiderwick Chronicles* is based on magic that children find present in their everyday reality. The story focuses on the Grace family, Simon (Freddie Highmore), Jared (Freddie Highmore), Mallory (Sarah Bolger), and their mother Helen (Mary-Louise Parker) as they arrive at their new home, the large, run-down Spiderwick Estate. Once there, Jared discovers a book written by his uncle who mysteriously disappeared. The book seems to be a field guide to a fantastical alternate universe that exists alongside Jared's current world. The Grace children soon learn the tricks to seeing this alternate world with their human eyes, only to find out it is in peril. An evil shape-shifting ogre named Mulgarath (played and voiced by Nick Nolte) wants the field guide for himself so he can use its knowledge to take over the world he lives in. The children use information from the field guide to try to stop him. In the process they uncover the remote enchanted fairy glade where their missing uncle Arthur Spiderwick (David Strathairn) has been residing for the last 80 years, untouched by time. Spiderwick is unable to destroy the field guide or leave the glade to help them.

The Grace children return to their home to fend off Mulgarath with the help of their mother as he invades their home to get the field guide. Mulgarath chases Jared onto the roof of the house from which Jared throws the field guide. Mulgarath in ogre form dives to catch the falling book and turns into a bird. Mulgarath's life is put to a swift end when one of the fantastical world's hobgoblins with an affinity for birds snaps him out of the air and eats him. The story ends with Spiderwick returning for his daughter who he left behind when he went missing 80 years prior. The old woman becomes a child again and the two return to the fairy glade where they will live forever.

The final confrontation between good and evil in the film, *The Spiderwick Chronicles* is a battle between the Grace family and Mulgarath. Mulgarath's goblin henchmen descend on the Spiderwick house after the moon rises and the spell of the protective circle surrounding the house is broken. They are after Arthur Spiderwick's field guide that will give them secrets about their parallel universe that will help the evil Mulgarath gain control over it. The Grace family (Jared, Simon, Mallory, and Helen) wants to prevent this from happening. They are able to protect the field guide and kill all the goblins, but they lose track of Mulgarath in the chaos. Then a knock comes at the door and the children are surprised to see their father, who they have not seen since he and their mother divorced. Jared is suspicious and ends up stabbing his father. His suspicion is confirmed when it turns out that the man is actually the shape-shifting Mulgarath in disguise. Back in ogre form, Mulgarath chases Jared, while the boy clutches the field guide. In the form of a snake, Mulgarath chases Jared through the attic and onto the house's roof. Back in ogre form, Mulgarath chases Jared up to the roof's tallest peak. Knowing that Mulgarath will shape-shift again to catch the falling book, Jarred throws the book off the roof. As expected, Mulgarath plummets to the ground, grabs the book in mid air, and turns into a crow. However, just as he starts to fly away, Hogsqueal's affinity for birds becomes useful. The hobgoblin abruptly picks the bird out of the air and eats him.

Firstly, from the moment Mulgarath bursts through the attic roof until Jared throws the field guide, eight of the shots frame just Mulgarath, seven are of Jared, and 18 shots include both of characters in the same frame. As this fantastical event is occurring, Jared and the computer-generated Mulgarath are shown together in the same frame

through digital compositing much more than they are shown individually. Much like the final confrontation between good and evil in *Harry Potter*, the digital compositing of protagonist and antagonist in the same frame can be related to Lefebvre and Furstenau's reading of Bazin. This interpretation stresses the importance of the spectator's emotional experience of believing in the fictional reality of narrative events (Lefebvre and Furstenau, 2002): 84). The effect of CGI in this scene is twofold: the spatial unity makes the event believable, and because it is believable, the audience is given an emotional experience of the narrative event. Although emotions may differ from spectator to spectator, in this particular case one can presume that the emotional experience would most likely be fear as the ogre villain pursues the child hero. However, this film does not maximize on fictional realism the way *Harry Potter* does with its longer shot lengths. It fulfills the description of what Bazin's *montage interdit* forbids by using many different framings to show the action of these characters' confrontation (Lefebvre and Furstenau, 2002: 83). Through this point alone, this film does not truly maximize the innovative potential like the use of CGI in single action shots in *Harry Potter*, nor does it make it any less innovative than *Narnia* or *The Golden Compass*, which also utilizes the spatial continuity of CGI. The true innovativeness of the use of CGI in *Spiderwick* comes into play with the next example from this scene.

In this particular film, the actual death of the villain and how CGI is used to render this is an interesting point for analysis. Firstly, the antagonist, Mulgarath does not die under the brute force of the protagonist, but dies as a result of Jared's intelligence and quick thinking. The protagonist in children's films is usually a child, while their adversary is usually much older, larger, and stronger than them. It presents a challenge to

filmmakers to realistically show how a child can resist opposition and defeat a force that greatly exceeds their power. CGI offers a solution to this problem in *Spiderwick* by showing the hero defeat the villain in a way that is both visually interesting and believable within the diegesis of the story. Jared defeats the powerful ogre by utilizing his mind to get Mulgarath to change into a bird. After the book is thrown off the roof, Mulgarath is shown in ogre form jumping off the roof to catch it in slow motion. In the background, Jared can be seen losing grip of the rope and falling a short distance. The shot changes to a medium close-up of Jared that shows him stop falling while still holding on to the rope. After this, Jared merely hangs on and watches the scenario play out. He is not shown again until a reaction shot after Hogsqueal eats Mulgarath. Essentially, in this scene, CGI does the work for the protagonist. It is used to show Mulgarath turn into a crow and it is used to render Hogsqueal snatching him out of the air and eating him. Once Jared develops an idea and executes it, all the violence is handled for him by the CG Hogsqueal. It is important to note that this is only believable because of the establishment of spatial continuity early on in the rooftop confrontation scene. Mulgarath and Jared are seen together in many shots while climbing towards the rooftop tower. Early in the scene, realism of the Bazinian conceptualization is utilized and a belief in narrative events is established throughout the scene. According to Lefebvre and Furstenau's (2002) interpretation of Bazin, this belief is part of the emotional experience that is film (84).

Perhaps the most interesting and innovative element of this scene is that through the use of CGI and film technique, the death of the antagonist in this film could be viewed as humourous. In a single shot, Mulgarath flies over Helen, Simon, and Mallory

in the centre of the frame towards the camera with the field guide in his claws. The shot then switches to a reverse shot behind Mulgarath to show him flying away with the field guide. The two second shot length is just long time for it to occur to the viewer that the bad guy appears to have won. Then, suddenly the middle of the frame is unexpectedly filled with a blur of feathers and field guide pages. Without changing shots, the camera quickly pans left to Hogsqueal in a tree with the bird's head in his mouth. He continues to leisurely munch down the villain that terrorized the family and the magical parallel universe. The meal and end to the film's conflict are capped off with a belch complete with projectile CGI crow feathers.

The humour in this scene can be attributed to both an absence of editing and the intriguing middle ground that only CGI can hold between animation and live action. The use of fantastical CGI is by definition perceptually real realizations of the impossible (McClean, 2007: 89). This particular use of fantastical CGI is still seemingly realistic, but it is its somewhat animated aspect of that makes it humourous. The CG Hogsqueal exhibits the exaggerated actions of a cartoon character— feather-laced burp and all. The gross-out crudeness of the villain's end is typical of Nickelodeon's brand of humour, which is sure to delight child spectators. Furthermore, the humourous irony of how easy it is to put an end to the antagonist after all the trouble he caused is surely not lost on audiences of any age. The fact that this part of the scene is cartoonish also dulls the violence of the gruesome act of one creature biting the head off of another.[23] This is similar to the dulling of emotional effect of the violence of killings in *The Golden Compass* through the use of CG daemon explosions. The result in both scenarios is

[23] Perhaps this act is a nod to the Ozzy Osbourne incident in which the singer is rumoured to have bit the head off of a bird. Osbourne shocked and appalled people with the act, yet with the use of CGI, it now can appear in a PG-rated children's film.

controlling the emotional response from the child audience of the film. In this case, it is an end that only CGI could be used to both render it realistically and allow for such an abrupt change in dramatic tone.

It is the editing choices in this scene that optimize the humour. As Giannette and Leach (2005) point out, the scenes in a film typically build towards a climax (40). At the climax of this film, the antagonist unexpectedly starts to escape with the coveted field guide. Without changing shots or altering spatial continuity, the narrative event quickly changes when Hogsqueal picks Mulgarath out of midair and eats him. As has been pointed out in the analysis of *Harry Potter*, spatial continuity helps the spectator to believe in the fictional reality of the film's narrative events. It has also been pointed out that Lefebvre and Furstenau (2002) indicate Bazin's notion that the emotional experience of believing in the fictional reality of narrative events is a paramount feature of film (84). Spatial continuity in this single shot from *The Spiderwick Chronicles* helps the spectator to believe in its fictional reality, and therefore experience an emotional reaction. Furthermore, Bazin's *montage interdit* forbids the editing of action into several shots (Lefebvre and Furstenau, 2002: 83). In the case of this single shot in *The Spiderwick Chronicles*, CGI is used to adhere to Bazinian realism in order to produce an emotional response to a sudden change in narrative trajectory. As was recently pointed out, a large part of this particular emotional response is humour.

This sequence is an unconventional cinematic construction of space and presentation of action to produce a humourous effect. An intensification of Bazinian realism and a CG middle ground between realism and animation makes for an innovative use of CGI for the purpose of humour in this film. This makes the film similar to *Harry*

Potter, which also respects *montage interdit* by showing multiple actions in a single shot. It also separates this film from *Narnia* because of the film's more conservative uses of CGI.

Inkheart

The 2009 film *Inkheart* is about a father who can read books to life and the adventure this ability takes him and his family on. The film opens with an introduction to Mo Folchart (Bredan Fraser) and his daughter, Meggie (Eliza Bennett) who spend their days nomadically travelling to different bookstores. In their travels, Mo fixes books and searches for a copy of *Inkheart*. Shortly after he finds one, an obviously unwanted character called Dustfinger (Paul Bettany) shows up. Mo goes with Meggie to hide out with Meggie's great aunt, Elinor (Helen Mireen). However, Dustfinger and some thugs find and kidnap Mo, Meggie, Elinor, and the copy of *Inkheart*. They are taken to a bandit named Capricorn's (Andy Serkis) castle. Their predicament prompts Mo to explain to his daughter and Elinor a secret that he has kept for years: that he can bring books to life by reading them. He discovered this talent one night while he was reading "Inkheart" aloud to Meggie and her Mother. This is why Meggie's mother vanished mysteriously one day. Mo read Capricorn, his sidekick Basta (Jamie Foreman) and Dustfinger out of *Inkheart* while his wife, Resa (Eliza Bennett) went into the book. He has been searching for the book so he can read her back into their world.

Capricorn forces Mo to read various things out of *Arabian Nights* into their world. He then burns the last copy of *Inkheart*, which means Resa cannot come out of the story and Dustfinger cannot go back in. With his dreams of going home ruined, Dustfinger defects sides and helps Mo, Meggie, and Elinor escape the castle to go find the book's

author, even though he knows Resa has already been read out of *Inkheart* and is working in the kitchen of Capricorn's castle. They escape and find the book's author, Fengolio (Jim Broadbent) who has a copy. Shortly after it is revealed by Dustfinger that Resa is at Capricorn's castle and Meggie also possesses her father's ability. They all go back to the castle to retrieve Resa. By the time they return, Capricorn knows about Meggie's gift and captures her mother and Fengolio in order to force her to read the villain from *Inkheart*. Meggie reads the large dark cloud called The Shadow to life, but manages to trick her own ability by reading an alternate story she has written on her hand. She turns Capricorn, all his supporters, and The Shadow to ashes. She then reads all the characters brought out of books back to their rightful places. Mo, Resa, and Meggie are reunited for the first time in years. Dustfinger obtains the last copy of "Inkheart" and Mo reads him back into the story.

Like the other films discussed here, the main characters in *Inkheart* find themselves in a dangerous situation when good confronts evil at the story's climax. With Fengolio, Toto, Resa, and Meggie held captive by Capricorn, Meggie is forced to read The Shadow from the last existing copy of "Inkheart." While Meggie reads The Shadow to life, the others attempt to save the prisoners. Dustfinger and Farid set fire to Capricorn's castle as a distraction, while Mo tries to get Meggie to stop reading. Mo is unsuccessful, but as The Shadow is about to devour Resa and Fengolio, Toto is able to deliver the alternate story that Meggie and Fengolio wrote earlier. Meggie reads this and The Shadow turns on Capricorn instead. Capricorn draws a sword to kill Meggie to stop her from reading, but Mo retrains him. The Shadow goes after Resa and Fengolio again, but is distracted by Mo. To save everyone, Meggie uses a pen to write on her arm what

she wants to happen. She sends The Shadow after Capricorn again and then turns the villain's skin into a page from a book, which turns to dust and crumbles and blows away. Capricorn and his henchmen are turned into dust that is absorbed by The Shadow. The Shadow then disintegrates at Meggie's command.

One of the affordances of CGI that is put to good use in this scene is the realistic long shots. In this scene, there are four different instances in which a long shot shows the castle with The Shadow looming over it. These shots respectively show The Shadow forming, further formed, fully formed, and then eventually once it is defeated and disintegrates. These shots are able to provide the audience with narrative information on the state of The Shadow. They essentially are used to narrate The Shadow's birth and death. They are also able to give the spectator important information for spatial orientation. The spectator can get a sense for how massive The Shadow is as it towers over Capricorn's castle. These shots function like establishing shots for the climactic battle scene that takes place in the castle courtyard. Before the use of CGI, miniatures would have most likely been used to create this type of shot. However, miniatures might have been considered too time consuming to only be only used in a couple of shots. There is also an issue with the realism of showing a dynamic, moving character to scale next to the miniature. In this instance, filmmakers were able to use CGI and change the distance of the second long shot to show the castle burning in the final long shot without building several models. This use of CGI is fantastical if read using McClean's (2007) definition, but still realistic looking and believable within the diegesis of the film. It is able to convey narrative information on the state of The Shadow and the castle while giving spatial orientation to the scene.

As was pointed out in the review section regarding this film, Morris (2009) argues that the only CGI worth mentioning in this film is The Shadow. One of the highlights of this scene is when The Shadow reacts to Meggie reading her own writing. This occurs when she reads from the page she wrote with Fengolio while being held captive and when she writes and reads from her own arm. When she reads from the hand-written page she states, "He remembered all those from whose ashes he was made—all the pain and grief." The cause-and-effect relationship is expertly executed as the CG Shadow appears to recoil in emotional turmoil. The result is similar when she reads from what she scrawls on her arm. This scene demonstrates the causality of narrative in that one event causes another as pointed out by Kovács (2007) and Bordwell and Thompson (1997). These authors point out that causation respects the laws of nature to connect one thing to another. It is explained within the diegesis of this film that one of the natural laws is that certain people can give life to and control the content of the words they read. Knowing this, the spectator can make this casual connection when Meggie's reading causes a reaction in The Shadow.

Much like in *The Golden Compass*, the long shots in this film emphasize the continuity of space and time, adding to the scene's realism. Applying the ideas of Bazin as conveyed by Lefebvre and Furstenau (2002), it can be said that long shots in *Inkheart* contribute to the spectator's ability to believe in the fictional reality of the narrative events of the battle (84). The emotional experience that results from this belief is part of the enjoyment of spectatorship. Unlike with *Narnia*, the innovative potential of CGI is experimented with in this scene, however not as much as it is in *Harry Potter* and *Spiderwick*. The epic battle scenes from these films include shots that show many actions

in one shot. This intensifies Bazin's conceptualization of realism rather than merely upholding it. The respect of space and time continuity in *The Golden Compass* and *Inkheart* only upholds realism. The intensification of Bazinian realism involves consideration of continuity in not just what is shot, but how it is shot. The lack of editing in the scenes from *Harry Potter* and *Spiderwick* is the key difference that makes their uses of CGI more innovative.

In conclusion, a great deal was discussed in this chapter about the relationship between fantastical CGI and narrative. It was discovered that that is more to this relationship than a spectacle versus narrative dichotomy as some scholars have suggested. As was shown in many instances, fantastical CGI can be spectacular while still allowing for the progression of the narrative. Sometimes CGI even enhances the narrative through the promotion of belief in the fictional reality of narrative events. This was seen in *The Golden Compass* and *Inkheart*, and even more so in *Harry Potter* and *The Spiderwick Chronicles*. Using arguments from Bazin as stated by Lefebvre and Furstenau (2002), it was proposed that showing characters and multiple actions in the same frame creates a sense of realism and that realism allows the spectator undergo an emotional experience of the scene.

To review, in examining fantastical CGI and narrative in *The Chronicles of Narnia* it was concluded that the continuity tradition of shot reverse shot involving a CG character helped highlight moments of realization for live action characters. Although, it did not help the film to question conventional film editing technique in order to innovatively utilize CGI like some of the other films. With an investigation of the culminating climactic battles between good and evil in *Harry Potter* and *The Spiderwick*

Chronicles, it was shown that single framings of several actions of character confrontations is the most innovative way to use CGI and intensify Bazinian realism. This is because in Bazin's conceptualization of realism, film is a representational medium that *re*-presents events as closely as possible to how they happened. Furthermore, the unique duality of CGI to be both realistic and animated allowed for a bit of humour in the death of the villain in *The Spiderwick Chronicles*, which is particularly important for the child spectator. Finally, in *Inkheart* and *The Golden Compass* long shots and overhead shots were argued to be supported by the narrative while giving important space and time continuity to the scenes. However, this classical film technique stresses the continuity of space and does not place as much importance on the continuity of time. This makes the use of CGI in these films less innovative than the intensification of Bazinian realism found in *Harry Potter* and *The Spiderwick Chronicles*.

All of the examples here argued against theorists like Mak (2003) that claim that the spectacle of CGI detracts from or suspends classical Hollywood narrative. The aim was to show that while still spectacular, these uses of CGI can still perpetuate the narrative. In some cases they were even shown to enhance the narrative through the promotion of space and time continuity. The main contribution of CGI in children's films to the larger notion of film was found to be the intensification of Bazinian realism by showing several characters and actions within the same shot, thus following Bazin's stipulations for *montage interdit*. The next chapter will examine other trends in the usage of fantastical CGI as they relate to causality and spectatorial emotional engagement in scenes from these same films.

Chapter 4: CGI and Causality

In the last chapter, it was argued that fantastical CGI can be spectacular while still allowing for the progression of the narrative. Sometimes CGI can even enhance the narrative through the promotion of belief in the fictional reality of narrative events. Using arguments from Bazin as explained by Lefebvre and Furstenau (2002), it was proposed that showing characters and multiple actions in the same frame creates a sense of realism that allows the spectator undergo an emotional experience of the scene.

This chapter will discuss the integral narrative element of causality and how it is created and portrayed in scenes using a great deal of CGI. Specifically, this chapter will address the strength of causality in scenes that depict narrative moments of danger in *Harry Potter*, *The Spiderwick Chronicles*, and *Inkheart*. Causality will also be discussed as it is depicted in the development of computer-generated characters and their relationships in *The Golden Compass* and *The Chronicles of Narnia*.

Since causality is a central topic of analysis in this chapter, it is useful to highlight its important elements that were discussed in the literature review. Causality refers to the strength of the relationship between cause and effect where the effect is a consequence of the cause. As was discussed in the literature review, Bordwell and Thompson (1997) see causality as essential to the classical Hollywood narrative (90). They assert that the spectator actively does work to recognize causality in his or her own mind by trying to connect events in a film by cause and effect (Bordwell and Thompson, 1997: 94). Similarly, Bordwell (2006) also comments on causality by stating, "…we understand stories in general because they are a heightening and focusing of skills we bring to understanding everyday social life—connecting means to ends, ascribing

intentions and emotions to others, seeing the present as stemming from the past" (15). This further stresses the idea that causality is constructed within the spectator. This statement also shows that the cause and effect involved in a causal relationship can be anything from actions to emotions to events. For example, causality could involve a chase scene in which the hero is pursued by the antagonist, as well as explain the look of fear on the hero's face while the chase is in progress.

The idea of causation in narrative is of utmost importance for the spectator because it allows them to make sense of a film's events. In "Things that Come After Another," Kovács (2007) discusses the purpose of causality when he states, "…direct representation of causation in narratives is a shortcut for representing laws of nature or society regularly manifesting themselves in individual series of events" (160). Although films may take place in different worlds from the viewers own, narrative Hollywood films usually represent the laws of nature and society that the spectator is familiar with. Any anomalies to these laws are usually explained within the diegesis of the film. For example, characters in *Harry Potter* can become invisible when they are completely covered by an enchanted invisibility cloak.

This section of the analysis is less about the status of the image and more about the relationship between one event and another and the role CGI plays in this. This examination will be informed by Kovács' (2007), Bordwell and Thompson's (1997), and Bordwell's (2006) discussions of causality. It will also aim to argue against Schauer's (2007) interpretation of the post-classical narrative conceptualization of narrative. In addition, similar to the last chapter, the analysis of these scenes will be informed by Lefebvre and Furstenau's (2002) article, "Digital Editing and Montage." The last chapter

referred to Lefebvre and Furstenau's (2002) discussion of Bazin's notions on emotional engagement. This chapter will expand on the notion of emotional engagement by examining how scenes from the five films analyzed deal with alignment and allegiance. These are two of the steps Smith (1994) deems essential for spectatorial emotional engagement. The notion of emotional engagement will be expanded upon in this chapter with reference to Murray Smith's (1994) concepts of alignment and allegiance.

Smith (1994) breaks down spectatorial engagement into three levels that comprise what he refers to as the *structure of sympathy*. These levels of engagement are recognition, alignment, and allegiance (35). Recognition is referred to as the spectator's construction of character as a human agent based on the perception of textual elements (Smith, 1994: 40). Since, as Smith (1994) acknowledges, this type of engagement is obvious and automatic in most narrative films, it will not be a topic of focus in this study.

The analysis in this chapter will focus on the alignment and allegiance processes as a way to study the nature of emotional engagement in CGI-rich children's films. The notion of emotional engagement was left vague in the last chapter, so Smith's (1994) more in depth account of emotional engagement will be used to further explore the subject. Smith (1994) defines alignment as, "…the process by which spectators are placed in relation to characters in terms of their actions and to what they know and feel" (41). This includes giving the spectator access to a character's actions and subjectivity. Smith (1994) says allegiance, "…pertains to the moral and ideological evaluation of characters by the spectator" (41). He further explains allegiance when he states, "With allegiance we go beyond understanding by evaluating and responding emotionally to the traits and emotions of the character in the context of the narrative situation" (Smith,

1994; 42). The author explains that allegiance depends on the spectator's understanding of the context of a character's actions and morally evaluating that character based on what they believe to be reliable access to the character's state of mind (Smith, 1994: 41). For example, if recognition and alignment have clearly established a protagonist and given the spectator access to their thoughts and actions, the spectator may feel a sympathetic sadness when the protagonist's father dies.

Smith's (1994) model for spectatorial engagement is a useful model for studying spectators' emotional engagement in this examination. Spectators possess individual subjectivities, so it is problematic to ascribe uniform emotional responses to all spectators. Instead of trying to assign specific emotions to spectators, this model allows determination of whether or not a spectator is encouraged to feel emotions sympathetic to those of the character. However, it should be acknowledged that this model does not consider the adult and child spectator as two distinct categories. One of the major goals of this analysis is to analyze the underexplored film category of Hollywood children's films that utilize CGI. Although it is beyond the scope of this study to provide a model for the study of both child and adult spectatorship, this would be an excellent topic to explore in future research.

This chapter will look at how the films analyzed in the last chapter engage spectators in the alignment and allegiance levels of the *structure of sympathy*. The ultimate purpose is to show the strength of the connection between causality, fictional realism, and spectatorial emotional engagement. Each of these concepts will be shown to be fundamental to the success of the others. It will be shown that all of the films foster alignment and allegiance, with the exception of *Inkheart*. The analysis of a scene from

Inkheart will show how it fails to effectively create allegiance within spectator to the character of Mo because of a flawed causality and the resulting inability to create a belief in the fictional realism of narrative events.

This chapter will show how CGI is integrated causally into scenes in a very traditional manner by using traditional editing techniques such as cutting on action[24], eyeline matches[25], and shot reverse shots.[26] These continuity tropes will be discussed as they promote fictional realism and emotional response (alignment and allegiance) from spectators. There will be a few examples in this chapter where strong causality, spatial continuity, or fictional realism are not upheld, but it will be explained how these instances should be attributed to filmmakers as opposed to being blamed on the technology of CGI.

Like the last chapter, this analysis will examine the type of CGI classified as fantastical CGI as defined by McClean (2007). This includes effects that are "images of astonishing qualities and realize the impossible to the highest standards of perceptual realism" (89).

Danger and causality

Danger is an integral element of any narrative. It holds the spectator's attention as the protagonist(s) encounter obstacles while working their way towards their larger goal. These moments of peril become crucial links in the cause and effect chain of events that make up a classical Hollywood narrative as characterized in the literature review by

[24] A continuity editing technique in which action is shown in one shot is edited to show its continuation in the next shot to give the impression of continuous time and space.
[25] A continuity editing technique in which the trajectory of a character's gaze is inferred by showing the character looking off screen in one shot and following this with a shot of what the character is looking at.
[26] A continuity editing technique which incorporates the eyeline match by showing a shot of one character looking off screen and the in the next showing another character facing the opposite direction. The reverse direction of the character in the second shot when compared to the first implies that the characters are looking at each other.

Bordwell and Thompson (1997), Bordwell (2006), and Gianette and Leach (2005). These narrative events often heavily utilize CGI to depict the characters in danger. Considering arguments of film theorists like Mak (2003) that spectacular, overt CGI temporarily suspends narrative, this section of the analysis aims to look at how these uses of CGI can still promote the narrative component of causality (41). Much like the previous chapter, this section will also grapple with the ideas of spatial continuity and fictional realism and how these relate to the emotional experience of spectatorship.

Harry Potter and the Philosopher's Stone

The protagonist and his friends in *Harry Potter and the Philosopher's Stone* find themselves in danger when they embark on their journey below the trap door to save the philosopher's stone. The children discover that someone has tricked information out of Hagrid regarding how to get around the three-headed dog, Fluffy that is guarding the philosopher's stone. Hagrid told an inquisitive stranger that the only way to subdue the beast was to play it some music. When the school's headmaster is called away from the school on an urgent matter, Harry, Hermoine, and Ron are convinced that the suspicious Professor Snape will go after the stone that night and they must get there before him. The three friends sneak out late that night to find someone has already beaten them to the trap door. Fluffy has been subdued an enchanted harp that has played him to sleep. The children move the three-headed dog's enormous paw off of the door in the floor and open it. As they are discussing their next move, the music stops playing and Fluffy wakes up. They finally realize the creature is awake after it slobbers on Ron's shoulder. Fluffy grabs the trap door in one of its mouths and tosses it aside. The three children jump down the exposed trap door with Fluffy's jaws snapping after them.

In this scene, causality and the classical technique of cutting on action link CGI and real elements in the scene so that they are blended seamlessly within the diegetic world of the film. Once they open the trap door Ron, Hermoine, and Harry bend over to look down it. Meanwhile, Fluffy the three-headed dog wakes from his music-induced slumber and looms over the three children. The next three shots are as follows:

Shot 1: In this shot taken through the door in the floor, the spectator can witness a large drop of drool plummet from one of the sets of jaws on the beast.

Shot 2: The glob of slobber lands on Ron's shoulder. Ron notices the substance and touches it to his disgust.

Shot 3: The next shot is an overhead shot of the three children as they look up and realize Fluffy is standing over them.

In this sequence, the cause and effect relationship between Fluffy drooling and the saliva landing on Ron is clearly represented through the classical Hollywood technique of cutting on action. This is a continuity editing trope of Hollywood cinema in which action begins in one shot and continues in another. An important aspect of this instance of cutting on action is that the drool in the first shot begins as CGI and in the second shot that cuts on the action it is a tangible prop. The two different forms of digital and traditional special effects are blended seamlessly through the two shots creating the illusion that a single object travels from one shot to the next. This form of continuity editing creates clear causality between CGI and non-CGI elements.

The same can be said for the portion of this scene in which Fluffy bites the trap door off the floor and tosses it aside while the next shot shows it smashing against a wall. In the first shot the door is CGI and in the second shot it is a real prop. Like with the

previous example, CGI props and real props are connected through continuity editing to look like one object. The result is clear causality between the cause of throwing the door against a wall and the effect of it breaking. This preserves spatial continuity between something that never existed (the CGI) and something that once existed before the camera (the trap door prop). It is worthwhile to relate this to the fear over the loss of indexicality of the image that was discussed in the literature review chapter of this study. As was discussed, some film theorists such as Manovich (2001) argue that CGI causes film to lose its existential bond with reality because something that has never existed can appear alongside something that has been filmed. This becomes problematic when one considers that this is another theoretical concern in the age of the contemporary ambiguous image. Consideration of the indexicality debate is yet another way in which the contemporary film image may create divergent, multiple meanings to various spectators. This study does not claim to offer a solution to the quandary of multiple meanings made possible to spectators in context of the indexicality debate. Instead, it merely offers a shift in focus to the concept of fictional realism, which is integral to the film watching experience regardless of age, gender, race, or level of film theory knowledge.

The strong causality created through cutting on action between CGI and real props in this scene from *Harry Potter* promotes fictional realism. Fictional realism and realism differ in that this scene does not promote belief that these events actually happened. Through cutting on action, this scene promotes belief in a world in which three-headed dogs drool on little boys and throw doors against walls in fits of fury. As Kovács (2007) argues, "…direct representation of causation in narratives is a shortcut for

representing laws of nature or society regularly manifesting themselves in individual series of events" (160). Even though the events in this scene may seem fantastical, through cutting on action they appear to follow laws of nature and society. For example, although the drool in this scene comes from one of the mouths of a giant three-headed dog it seems to still follow the law of gravity and rules and principles of matter. By mimicking the laws of society and nature that spectators are familiar with, this scene promotes fictional realism. As was argued in the last chapter using Lefebvre and Furstenau's (2002) interpretation of Bazin, belief in the fictional realism of narrative events in a film allows for one to undergo the emotional experience of film (84).

As was discussed in the introduction of this chapter, Smith (1994) conceptualizes spectators' emotional engagement in the film watching process through three levels of spectatorial engagement. These levels comprise the *structure of sympathy* (34). This analysis will deal with the processes of alignment and allegiance. The use of cutting on action allows this scene from *Harry Potter* to effectively accomplish the alignment and allegiance levels of spectatorial engagement. Elements of this scene fulfill Smith's (1994) outline of the alignment process by placing spectators in relation to Ron's actions, knowledge, and feelings.[27] For example, cutting on action when Fluffy drools on Ron not only creates spatial continuity, but Ron's disgusted reaction and realization of the presence of the dog gives the spectator access to his actions (placing his hand on the drool), knowledge (realizing Fluffy is awake), and feelings (disgust and then fear when he realizes Fluffy is the source of the substance on his shoulder) (Smith, 1994; 41).

[27]It is worthwhile to mention that Ron is not the protagonist of the film. Smith (1994) acknowledges that a spectator can engage with a character that is not the protagonist through the structure of sympathy. He gives the example of Mrs. Drayton in *The Man Who Knew Too Much* (Hitchcock, 1956) (48).

Alignment prepares the spectator to move on to the next level of emotional engagement: allegiance.

For allegiance to occur according to Smith's (1994), the spectator must morally and ideologically evaluate the character (41). Alignment gives the spectator access to Ron's actions, knowledge, and feelings. The spectator's moral and ideological judgments of the character based on this access define how a spectator will emotionally engage with what happens to this character. For example, in this instance, the film portrays Ron as a supportive friend to the hero. Having morally evaluated Ron as a good character, a spectator of any age group will most likely feel sympathetic disgust and fear towards a situation they regard as harmful to him. Smith (1994) points out that the spectator does not mimic the mental state of the character (42). Rather, they understand the character and his context, and respond emotionally in a sympathetic manner appropriate to the context of the action (Smith, 1994; 43). According to Smith's (1994) explanation, the spectator sympathetically emotionally responds to the actions in the scene that are clearly depicted through cutting on action. In this scene, the seamless blending of CGI and real elements through cutting on action engages spectators in the alignment and allegiance levels of the *structure of sympathy*.

The Spiderwick Chronicles

Like the characters *Harry Potter*, Mallory and Jared find themselves in digitally rendered danger in *The Spiderwick Chronicles* when they are chased through a tunnel by a troll. After Jared escapes being held captive by Mulgarath's hench-goblins, he and his brother make it safely back to their house. However, on their way back, the goblins follow them. They attack the twins' sister Mallory, but she is able to fend them off with

her fencing foil and escape inside the house. Upon discovering they cannot destroy the field guide with fire, the children decide their next move should be to take a secret underground passageway to find their great-aunt Lucinda at the sanatorium. They think she will know about the field guide and can help them stop Mulgarath from obtaining it. Simon stays behind to create a distraction while Jared and Mallory go through the secret underground passageway taking the book with them. Mulgarath's goblins see them go underground and try to pursue them from the surface. Unsuccessful, the lead goblin gives an order to get the troll. Jared and Mallory try to navigate through the forked tunnels as the troll starts chasing them. The siblings run until they find a ladder and almost make it up to the surface, but the troll grabs Jared and pulls him back down the tunnel. Jared is able to grab a pipe and stab it into the creature's eye. While it is flailing in pain, Jared and Mallory make it through a manhole to the surface. The troll recovers and makes it through the manhole after them. Just as it crawls out after the children, it is hit and killed by a truck and slides back down the manhole.

Much like was shown in the analysis of *Harry Potter*, the causality in this scene is strong due to the editing trope of cutting on action. However, the causality in this scene is ultimately weak because there is a key difference in the clarity of the casual motivation of the antagonistic troll. Despite this weakness (see below), this scene is an excellent example of causality during a chase scene. At one point, Mallory and Jared are shown running towards the camera in the tunnel and the troll rounds the corner to follow them. The next shot cuts on the troll's action of running to show him running towards the camera. Just as the troll reaches the camera, the shot changes to show the troll from behind as it pursues the children. The cutting on action in these shots is similar to that in

the previous example from *Harry Potter* where action starts in one shot and is continued in the next. In these shots, the simple overarching causality of a chase scene is made clear: the cause of the troll creates the effect of the children running to escape it. The cutting on action shots clearly demonstrate this causality as the troll chases the children and the children run away.

Similar to the connection in *Harry Potter* between real and CGI props, this scene's strong causality through cutting on action between CGI and real characters promotes fictional realism. As Kovács (2007) argues, "…direct representation of causation in narratives is a shortcut for representing laws of nature or society regularly manifesting themselves in individual series of events" (160). Even though the events in this scene may seem fantastical, through cutting on action they appear to follow laws of nature and society. For instance, it is a well known principle in the natural world that if something fears something else, it will either try to escape from it or fight it. Partaking in both sides of the fight or flight principle, Jared and Mallory's reactions create a sense of fictional realism in this scene. As was argued in the last chapter using Lefebvre and Furstenau's (2002) reading of Bazin, belief in the CGI-enhanced fictional reality of narrative events in a film allows for one to undergo the emotional experience of film (84). Adhering to the fight or flight principle helps the spectator believe in the fictional reality of the narrative event of the chase scene.

In this chapter, Smith's (1994) concept of spectatorial engagement through the structure of sympathy is used to expand on the vague term of "emotional experience". Alignment and allegiance were discussed in terms of *Harry Potter* to show that the use of cutting on action helped to emotionally engage the spectator. The same will be shown for

the troll chase scene from *The Spiderwick Chronicles*. Elements of this scene fulfill Smith's (1994) outline of the alignment process by placing spectators in relation to Jared's actions, knowledge, and feelings (41). For example, the scene begins with a shot that vertically pans down to show Mallory and Jared underground, which gives the spectator access to their actions. The spectator is given access to Jared's knowledge when he identifies the troll by recalling it from an earlier experience with the field guide. The spectator is also given access to Jared's emotions by the look of fear on his face and his screams while the troll is chasing him and when it catches him and drags him down the tunnel. These forms of access to the character of Jared allow for the process of alignment to occur, which sets the spectator up for emotional engagement through allegiance.

For allegiance to occur according to Smith (1994), the spectator must morally and ideologically evaluate the character (41). Alignment gives the spectator access to Jared's actions, knowledge, and feelings. The spectator's moral and ideological judgments of the character based on this access define how a spectator will emotionally engage with what happens to this character. Jared's moral and ideological orientation in the film is hardly made ambiguous. Through his actions earlier in the film, Jared is shown to be an ethical character who is motivated by the goal of protecting his family. This is made evident when he saves Simon from the goblins and the tenacity with which he tries to free his family from Mulgarath's attacks. All of this should shape a positive moral and ideological judgment of Jared by the spectator. According to Smith (1994), this will lead the spectator to feel sympathetic fear in a situation which they regard as harmful to the character. As was pointed out in the analysis of *Harry Potter*, Smith (1994) indicates that

the spectator does not mimic the mental state of the character (42). Rather, they understand the character and his context, and respond emotionally in a sympathetic manner appropriate to the context of the action (Smith, 1994; 43). In this case, the spectator may feel a sympathetic fear for Jared and an antipathetic aversion towards the troll that threatens to harm him. In this scene, the seamless blending of CGI and real elements through cutting on action scene engages spectators in the alignment and allegiance levels of the *structure of sympathy*.

Despite the formation of allegiance and alliance, the causality of this scene exhibits a flaw that the scene from *Harry Potter* does not. Although the causality of the chase element of the scene is portrayed, the causality for the motivation of the antagonistic troll is not. This scene marks the first appearance of the troll character in the film. It is commanded to chase the children by the head of Mulgarath's hench-goblins. When Jared finds the field guide early in the film, it is stated that all the evil characters in the parallel world work for Mulgarath. Since the goblins are shown earlier in the narrative to work for Mulgarath and the troll follows their command, it must be assumed that the troll works in service of Mulgarath and is not chasing the children for his own purposes. On the subject of causality, Bordwell and Thompson (1997) assert that the spectator actively does the work in his or her own mind to connect events in a film by cause and effect (94). The drawn out explanation that was mapped out to connect the troll to chasing the children is an illustration of the work the spectator has to do in his or her own mind to create a reasonable motivation for the troll's actions. This sort of work may leave the spectator with a weak connection between cause and effect. The result is weak causality. The motivations of the troll are not developed in this scene and this is the

first and last time that this character is seen or heard about within the narrative. This differs from the causality that is given to Fluffy's actions in *Harry Potter*. The three-headed dog is mentioned several times within the narrative of the film before it attacks the young wizards. Its purpose as guard dog of the trap door is made clear throughout the narrative. For this reason, the spectator of *Harry Potter* does not have to do as much work as the spectator of *Spiderwick* to discern the cause of the antagonistic character's actions. The weak causality in the beginning of the scene in *Spiderwick* diminishes the strong causality that is later developed through cutting on action during the chase. It is clearly established that the troll is chasing Mallory and Jared, but why it chases them becomes a cause too weakly addressed to ignore.

The brief life cycle of this CG character leads one to suspect it is inserted into the narrative simply for spectacular reasons, which has been indicated by Bordwell (2006) and Schauer (2007) as a major concern regarding contemporary post-classical Hollywood films. However, these authors argue against this claim, and Schauer (2007) disagrees with the accusations of post-classical narrative,

> In contrast, contemporary films are accused of being constructed not to provoke thought or even generate an emotional connection between the characters and audience, but to jolt and arouse the spectator like a roller coaster (an oft-cited metaphor for the New Hollywood). The plot, as it is, exists only to connect one epic action sequence to another (194).

For this scene to be accused of being included for the sole purpose of spectacular, visceral thrills it would have to contribute nothing more than this to the narrative of the film. This is not the case as many narrative purposes can be found in this scene. The

troll could be viewed as an emotional method for ushering the children from the house to the sanatorium. Furthermore, stabbing the troll with the pipe represents an important point in the heroic trajectory of Jared's character. It represents a moment of heroic quick-thinking as the small boy fends off a giant troll. Lastly, a chase scene moves the characters forward in space and time. This moves the narrative forward at the same time. As they are chased down the tunnel, Mallory and Jared move closer towards resolving the film's central conflict, which means saving the parallel universe and restoring order to their lives. Despite the weak element in the causality of this scene in *Spiderwick*, the narrative carries on. The overarching message in McClean's (2007) digital storytelling is that CGI is merely a tool for filmmakers and nothing more or less. This scene from *Spiderwick* exhibits examples in which CGI is used to create both weak and strong causality. The fact that a single scene can include both strong and weak uses of CGI shows how subjective of a tool it is for filmmakers. Furthermore, it is not necessarily the technological prowess that goes into creating CGI that matters in filmmaking. The most aesthetically realistic CGI means little if it is not integrated into the narrative of a film seamlessly by using classical Hollywood techniques.

It is also interesting to note that despite this flaw in the causality, allegiance and alliance are still forged. Perhaps this is because allegiance and alliance in this instance are formed with the film's protagonist, and the problem with causality exists with a very minor antagonistic character. The experience of the film is not based on the spectator's emotional engagement with the troll, so its casual motivation for chasing the children is not as important as the establishment of causality regarding Jared's actions.

Inkheart

Much like in *Harry Potter* and *The Spiderwick Chronicles*, filmmakers make use of CGI in *Inkheart* to render their characters in a dangerous situation. In *Inkheart*, Mo, Meggie, and Lucinda are captured by Capricorn because he wants to exploit Mo's magical ability to read books to life. Mo is made to demonstrate this ability, and then the family is thrown in the barn with several other prisoners that have been read out of books by Capricorn's current reader. After the reading, Capricorn breaks a deal he had with Dustfinger by burning the last copy of "Inkheart", thus destroying his chances of being read back into his story. A disillusioned Dustfinger realizes that helping Mo escape to find another copy is his only way home. He frees the captives from their cell and gives them a copy of *The Wizard of Oz* so that Mo can read the tornado out of the book as a distraction while they escape. A huge funnel cloud and high winds bring destruction and chaos on Capricorn's castle as Mo, Meggie, Lucinda, Farid, and Dustfinger find an empty van to escape in. They escape the castle limits and onto the road where a house flies over the van narrowly missing it and landing right behind them as they successfully make their getaway.

In contrast to *Harry Potter* and parts of the scene from *Spiderwick*, *Inkheart* fails to establish a strong relationship of causality between CGI and non-CGI causes and effects in this scene. The tornado in this scene appears to have a strong effect on the environment around it. It blows leaves and trees around, pulls shingles off roofs, and lifts cars and houses off the ground. Despite all of this, when the main characters Mo, Meggie, Dustfinger, Farid, and Lucinda escape down an alley of Capricorn's castle, the wind from the storm barely ruffles their hair. This occurs as flying CG shrapnel misses

their heads by inches and leaves and trees can be seen blowing all around them. The result is a poor relationship between the cause (the storm) and its effects (the appearance of physical disturbance to the characters). After this, the five characters make it into the courtyard where they are stopped by two of Capricorn's guards in a car. Before the guards can exit the car, it is picked up by the wind and tossed into the air. CGI is used to render the car flying upwards into the sky. Normally this would be an example of how CGI is utilized to strengthen the relationship between the cause and effects of the tornado, but it has the opposite effect in this instance. The car sequence comes directly after the alley sequence in the narrative. The extreme effects in the second sequence serve to highlight the lack of effects in the first sequence. The problem concerning the lack of causality persists: if the tornado can pick up a car and two men it should also be able to tousle a few locks of hair.

Furthermore, near the end of the scene there is a second instance in which the effects of the tornado fail to be seen on the actors when CGI is involved. As the five characters escape Capricorn's castle in a stolen van, a house flies over them narrowly missing their vehicle and lands on the road behind them. The cause of the CG house flying over them is met with barely any signs of effect on the characters. The only indication of alarm comes from Meggie who softly utters "watch out." The spectator is meant to believe that the characters' lives are in peril, but they barely flinch or show fear when the uprooted house flies inches above their van. The actors' reaction is disproportionally subdued compared to the danger the audience is supposed to believe they are facing. They merely watch the house fly over them with only Meggie making a sound.

The weak causality in these two examples represents the failure of this film to preserve spatial continuity when utilizing CGI. The filmmakers were unable to make it appear as though these characters and the CGI used to visualize the storm share the same space. This affects belief in the fictional realism of the narrative event of the storm in the film. As has been discussed previously, Lefebvre and Furstenau (2002) indicate Bazin as arguing that belief in the fictional reality of narrative events is integral to the emotional experience of a film (84). To expand on the concept of emotional experience, the analysis in this chapter will continue to use Smith's (1994) alignment and allegiance levels of spectatorial engagement.

Unlike the problematic causality in *Spiderwick*, the flawed causality in *Inkheart* has repercussions on Smith's (1994) allegiance level of spectatorial engagement. The errors in spatial continuity involving the wind and the flying house in this scene do not seem to affect the alignment level of engagement. The spectator is given access to Mo and the other characters' actions, knowledge, and feelings (Smith, 1994; 41). For example, the spectator can still observe Mo's ducking and weaving amongst the shrapnel the storm blows around. The spectator knows that Mo knows a house flies over the van because they see him look up at it as a reflection of the airborne house appears in the window of the car. The spectator can see Mo's face in this shot so they have access to his feelings by reading his facial expressions. However, in this particular scene Mo's lack of emotion can be problematic for spectatorial engagement. The problem with allegiance is linked to the problem with causality. The narrative situation (the cause) and the emotional reaction (the effect) are not strongly connected.

It has previously been stated that allegiance depends on a moral and ideological evaluation of the character by the spectator (Smith, 1994). On the subject of allegiance Smith (1994) also states, "With allegiance we go beyond understanding by evaluating and responding emotionally to the traits and emotions of the character in the context of the narrative situation" (42). From this statement, one can gather that both evaluation of the character and response to their emotions are fundamental to allegiance. According to Smith (1994), allegiance leads the spectator to feel sympathetic emotions towards the character (42). As was pointed out in the analysis of *Harry Potter* and *Spiderwick*, Smith (1994) indicates that the spectator does not mimic the mental state of the character (42). Instead, Smith (1994) explains that the spectator's emotional response is sympathetic to the emotions of the character rather than empathetic (42). If the character in the film does not respond with the appropriate emotional response to the narrative situation, this impedes the spectator's emotional engagement with that narrative event. In the case of *Inkheart*, the lack of fear expressed by Mo when the house flies over the van creates a problem with the spectator's allegiance to the character. The spectator can likely realize the gravity of the narrative event, but Mo does not give them the corresponding indicators to emote fear, shock, or any of the other multitudes of emotions an event like this one might involve. This mismatch of narrative event and emotion prevents emotional engagement in the way Smith (1994) describes.

In this scene, the flawed blending of CGI and real elements creates weak causality and prevents the allegiance level of spectatorial engagement. However, as was previously discussed in relation to the analysis of weak causality in *Spiderwick*, one should be cautious before blaming CGI for the problems with causality, alignment, and

allegiance in this scene. As McClean (2007) argues throughout *Digital Storytelling*, CGI is merely a tool and it is up to filmmakers how they utilize it. In a review of *Inkheart*, Chang (2009) criticizes the film's director when he said, "…director Iain Softley seems more interested in ushering his characters from point A to point B…than in fostering emotional engagement and that all-important sense of wonder." Considering Chang's (2009) statement and the preceding evidence, it is possible to suggest that the director is responsible for the inadequacies of this scene. He could have utilized wind machines and better directed the actors' emotions to improve causality and emotional engagement in this scene. This would have made for more believable interplay between the CGI and the actors. This could have improved spatial continuity, the spectator's belief in the fictional realism of the storm, and spectatorial engagement. Smith's (1994) levels for spectatorial engagement seems to be what Chang (2009) indicates as missing from the film when he refers to "…emotional engagement and that all-important sense of wonder." As Lefebvre and Furtenau (2002) argue, the emotional experience is contingent on belief in the fictional realism of narrative events (84). As was shown in this analysis, emotional engagement was not achieved because of failure at the allegiance level of the *structure of sympathy*. The use of CGI cannot be blamed for the fact that the spectator's emotional response may differ from what might be expected based on the narrative event. These instances may involve CGI, but it is up to the director to utilize them as a tool to create clear causality and effectively engage the spectator emotionally.

The actors also have a role to play in creating convincing causality, spatial continuity, alignment, and allegiance. This analysis argued that Fraser's subdued reaction to the flying house is disproportional to the danger his character faces. Chang

(2009) also finds fault with the performance of the film's star. He states, "The sole American in a cast of mostly British thesps, Fraser doesn't vary his game much, essentially reacting to elaborate special effects as he did in 'Journey to the Center of the Earth' and 'The Mummy' movies" (Chang, 2009). Although he is not referring to this scene in particular, Chang (2009) is able to pick up on the shortcomings of the interaction between Fraser and the CGI in this film. Coincidentally, *Inkheart's* villain played by Andy Serkis, is slated to open up a school to teach actors how to perform with CGI in films (IMDB, 2010). An acting school that focuses exclusively on CGI brings up the notion that acting in these films requires a new skill set. Arguably, this skill set is not yet acquired by all actors and this accounts for Chang's (2009) critique of Fraser's performance.

Causality: CG characters and relationship development

This next section will discuss causality as it relates to the character and relationship development of computer-generated characters. Since the trajectory of character development is so closely linked with a film's narrative, this is an integral narrative concern as so many fully CG characters find their way into starring roles. According to Schauer (2007), some theorists argue that post-classical narrative is often accused of being weakly plotted thrill rides that fail to provoke thought or generate emotional connections between characters and the audience (104). Just as Schauer (2007) disagrees with this idea, this section of the analysis aims to show how through strong causality, CG characters can still contribute to the narrative through character development and relationship building. Much like the last section, this section of

analysis will deal with the ideas of spatial continuity and fictional realism and how these relate to spectatorial engagement through alignment and allegiance.

The Golden Compass

The Golden Compass offers an interesting instance to examine a fully CG character in relation to narrative. Much like reviewers of *Narnia* singled out the wolves and Aslan as the most impressive CGI in the film, reviewers from *Entertainment Weekly*, *Variety*, and *The New York Times* claimed to thoroughly enjoy the computer-generated bears, especially Iorek in *The Golden Compass*. As a significant character in the narrative of *The Golden Compass*, Iorek represents an interesting subject to analyze. In the following analysis, narrative causality will be considered in terms one of the most elaborate CGI sequences in the film— the scene in which Iorek fights Ragnar.

On her way to rescue the kidnapped children in Bolvanger with the Gyptians, Lyra is kidnapped by Samoyed people. She is taken to Ragnar, the king of the ice bears of Svalbard. Being the clever girl that she is, Lyra remembers that Mrs. Coulter once told her Ragnar's greatest desire is to have a daemon of his own. Lyra offers to become Ragnar's daemon, but only if he defeats her current owner, Iorek in one-to-one combat. She convinces him that she is a daemon by using the alithermometer to tell Ragnar something that only he would know. Lyra sees through the alithermometer that Ragnar became king of the armoured bears by poisoning the former king and defeating Iorek, the heir to the throne, in combat. When Iorek arrives to save Lyra, she tells him why he must fight Ragnar. The two armoured bears engage in battle while the other ice bears look on. The fight proceeds fairly evenly until Ragnar bites Iorek's paw. Iorek recoils as Ragnar taunts and hits him. Ragnar yells "Is that all?" in Iorek's face, while Iorek gathers all his

strength and knocks Ragnar's bottom jaw off. He finally kills Ragnar by biting his neck and breaking it. Since he kills the former king, Iorek becomes the king the armoured bears of Svalbard. However, he leaves the armoured bears to take Lyra to Bolvanger to continue her mission to rescue the kidnapped children.

As has been stated previously in this study, Schauer (2007) characterizes how some theorists see post-classical narrative (loosely connected action sequences lacking thought and emotional connection [194]. See page 84 for full quote). Proponents of the post-classical narrative category could potentially argue that this action-heavy battle scene in *The Golden Compass* represents an example of an epic action sequence void of thought and emotional connection. However, this analysis, will show that strong causality is achieved through classical film techniques like eyeline matches and reaction shots to develop characters and their relationships to each other. It will also examine the repercussions of this on the alignment and allegiance levels of spectatorial engagement.

During the fight between the ice bears, Ragnar bites Iorek's paw and then slaps and taunts him. Just when it appears that Ragnar has defeated the injured Iorek, Iorek turns around and an eyeline match shot shows a frightened Lyra being jostled by the surrounding ice bears. The reverse shot shows an intensified angry look on Iorek's face. The subsequent shots show Iorek gather strength in his injured paw and use the other one to knock Ragnar's jaw off of his face. A reaction shot of Lyra shows her no longer being pushed by the ice bears, but still with an upset expression. Iorek is then shown biting and snapping Ragnar's neck and throws him to the ground. The next shot of Lyra shows her exhaling a sigh of relief.

The three shots of Lyra placed throughout this portion of the sequence create strong causality for the narrative event of Iorek defeating Ragnar. First, the eyeline match from Iorek to Lyra being pushed and then the shot of an angered Iorek creates causality for the violent actions he takes. Even though Lyra is not injured by the bears in this particular shot, the audience is made aware that Lyra will be in great danger if she is handed over to Ragnar upon Iorek's defeat. With this shot, causality becomes clear. Lyra's well being appears to be the cause to the effect of Iorek's ruthless removing of Ragnar's jaw and fatal bite to the neck. Subsequent shots of Lyra's apprehension and relief further strengthen the cause and effect relationship as they show her reaction to Iorek's actions. These shots also strengthen the spatial continuity of the scene. The shot reverse shot continuity editing trope communicates to the spectator that Lyra and Iorek are looking at each other in the same space. This is reinforced by the strong relationship between cause and effect as Iorek fights more aggressively after looking at Lyra. Bearing this study's discussion of Bazin and Lefebvre and Furstenau (2002) in mind, spatial continuity in this scene helps build fictional realism and belief in the fictional reality of narrative events in a film allows for one to undergo the emotional experience of film (84). The emotional experience for spectators of this scene is closely linked to spectatorial engagement based on alignment and allegiance with Iorek.

Alignment in this scene is easily identifiable. The spectator is given access to Iorek's actions, knowledge, and feelings. His actions can be seen from the moment he arrives at Ragnar's palace, including his actions during the fight. Furthermore, only Lyra, Iorek, and the spectator are given knowledge of Lyra's plot to pit Iorek and Ragnar against each other in combat in order to win Iorek back his crown. Finally, the spectator

has access to Iorek's feelings during the fight through the reverse shots of his face that emphasize his facial expression. For example, one of the reverse shot shows Iorek snarling in anger when Lyra is shoved around by the ice bears.

In addition to creating causality, spatial continuity, and fictional realism, Iorek's causally-driven actions promote allegiance when viewed with the interspersed shots of Lyra. That is, these shots give justification to Iorek's violent actions. As was discussed in the literature review, Bordwell (2006) says, "…and we understand stories in general because they are a heightening and focusing of skills we bring to understanding everyday social life—connecting means to ends, ascribing intentions and emotions to others, seeing the present as stemming from the past" (15). The shots of Lyra being pushed and an enraged Iorek allow the audience to ascribe emotions and intentions to Iorek and evaluate him morally and ideologically. It becomes clear that the cause for why Iorek takes his actions is his love for Lyra and desire to protect her from danger. A moral and ideological evaluation by the spectator can justify the violently brutal killing, as it is made clear he is fighting for Lyra's safety and not his own. Iorek's actions appear selfless and noble as they are not the result of his own personal vendetta against Ragnar. Thus, the violence in this scene takes on a less gratuitous quality as it is based on a relationship between Lyra and Iorek that is developed within the film. This fight scene is able to develop the bond of friendship between Iorek and Lyra, as well as develop the spectator's allegiance with the character of Iorek by showing him to be honourable and loyal. Alignment and allegiance are integral to the spectatorial experience of narrative because they contribute to the spectator's engagement with narrative and the characters that perpetuate it.

With the proceeding analysis in mind, this film hardly seems to fit Schauer's (2007) description of post-classical narrative films that move from one action scene to the next without generating an emotional connection between the character and the audience (194). Rather, strong causality in this scene is achieved by classical techniques like eyeline matches and reaction shots to develop characters and their relationships to each other, an integral part of the spectator's engagement with a film through alignment and allegiance.

The Chronicles of Narnia

The character of the noble lion, Aslan provides another interesting case to examine a fully CG character in relation to narrative. In reviews discussed in the last chapter, the characters of Aslan and the White Witch's wolves were addressed as some of the CGI highlights of *The Chronicles of Narnia*. Many commented on a level of perceptual realism that is achieved in the digital realization of these creatures. Characters like Aslan and the wolves present a great opportunity to examine how computer-generated characters function causally within the narrative of a film. It is a question that is rarely touched upon in literature on the subject of CGI and narrative. This question will be considered with an analysis of the scene in which Aslan knights Peter.

This scene comes shortly after the Pevensie children make it to Aslan's camp after being chased by the White Witch and her police wolves. Before they are to go to war with the Witch over control of Narnia, the children are given some time to relax. Peter discusses his doubts over his abilities to fulfill the prophecy and save Narnia with Aslan, while Lucy and Susan play by the river. They are still separated from Edmund who is a prisoner of the Witch. As Lucy and Susan play in the river, Maugrim and

another police wolf sneak up on them. When Susan realizes, she blows a horn in distress. Peter and Aslan come running to help the girls. Peter draws his sword on the wolves who taunt him for his inability to kill them when he had the chance on the frozen river. Aslan pins the other wolf while reinforcements from Aslan's camp arrive. Aslan commands them to let Peter fight his own battle. Maugrim lunges at Peter and the two fall lifeless on the ground. Lucy and Susan roll Maugrim off Peter to find him alive having killed Maugrim with his sword. Aslan lets the other wolf go and instructs his soldiers to follow him, knowing he will lead them to the Witch's camp and Edmund. Aslan then knights Peter.

In this scene, the narrative event of Aslan knighting Peter will first be examined in terms of causality. After Peter kills Maugrim, Aslan asks him to clean his sword. The verbal command in this shot is linked with strong causality to the next shot which shows an overhead shot of Peter's sword as he puts the blade into the ground and kneels on one knee. In the next shot, Peter kneels before Aslan as the lion places a paw on the boy's shoulder. In this shot Aslan gives the command for Peter to rise as a knighted man. Again, a verbal command by Aslan creates a strong causal connection between two shots as the next shot, taken over the shoulder of Aslan, shows Peter rising to his feet. The reverse shot shows Aslan again as he finishes his knighting by giving Peter the title of Knight of Narnia. Aslan's words create strong causality for the next shot, which shows Peter's surprised and pleased reaction. After a quick reaction shot of similar expressions from Lucy and Susan, the scene finishes with a shot reverse shot of Peter and Aslan looking intently at each other.

In this scene, verbal commands by Aslan are causally linked to the obedient actions of Peter. Like in *Inkheart*, this is similar to the cause and effect relationship between Meggie's commands while reading and The Shadow's compulsory response described in the previous chapter. This causality allows the narrative to move forward and contributes to the narrative event of Peter being knighted. This is a significant event as it symbolizes Peter's transformation from a boy into a royal soldier. It allows for the development of the heroic trajectory of Peter's character. Even though Aslan is computer-generated, he is still an integral part of the causality of the scene. His verbal commands and Peter's obedience to them function much like the cutting on action cited in this chapter's discussion of *Harry Potter*. Both use separate shots to causally link CGI elements and non-CGI elements. As was referenced in the analysis of the scene from *Harry Potter*, Kovács (2007) argues, "…direct representation of causation in narratives is a shortcut for representing laws of nature or society regularly manifesting themselves in individual series of events" (160). Through the causal connection between verbal command and corresponding action, this scene appears to follow the laws society. It allows it to seem as though the CGI and non-CGI characters share the same space at the same time. This helps the viewer to believe in the fictional reality of the narrative event.

As has been cited previously, Lefebvre and Furstenau (2002) read Bazin to argue that belief in the fictional reality of narrative events in a film allows one to undergo the emotional experience of film (84). To expand on the notion of emotional experience this chapter has drawn on Smith's (1994) alignment and allegiance levels of spectatorial engagement. In the last example in this chapter, shot reverse shot continuity editing was shown to build on Lyra and Iorek's relationship and the spectator's engagement through

alignment and allegiance with the CG character of Iorek. Similarly, this analysis will show how this scene builds on the relationship between Peter and Aslan, as well as the spectator's engagement through alignment and allegiance with the characters of Aslan and Peter.

Alignment with Aslan and Peter is clear in this scene. The spectator is given access to their actions, knowledge, and feelings. Their actions are clear to the spectator when Aslan gives commands and Peter obeys them as was previously discussed. The spectator is also given access to Peter and Aslan's knowledge. For example, the spectator is able to see Peter and Aslan hear and respond to Susan's horn call for help. The spectator is brought with Peter and Aslan to the river where the characters and the audience learn that Lucy and Susan have climbed a tree to evade Maugrim. Peter's emotions are clear to the spectator through the worried look on his face when he is about to fight Maugrim or his smile after he is knighted. Aslan's feelings are slightly less available to the audience, which is expected from his noble and wise character. Although, his feelings are made evident to the spectator when he nods and blinks benevolently at Peter after he knights him.

The knighting sequence of this scene is pivotal to both alignment and the development of the relationship between Peter and Aslan. During the three medium shots in the shot reverse shot structure (two of Peter and one of Aslan) the camera gradually pulls in closer to Peter and Aslan's faces. This suggests a growing intimacy between the characters as they share a pivotal moment in Peter's growth into the hero role. A benevolent blink and nod from the computer-generated Aslan suggests the passing of knowledge, wisdom, and power from the teacher to the student. In this case, the

development of the relationship between Peter and Aslan and the development of alignment both occur at the same time. This is because the development of their relationship involves the revelation of feelings, just as alignment requires spectatorial access to characters' feelings.

Allegiance is also achieved in this scene. In accordance with Smith's (1994) definition, the spectator is given access to the Peter and Aslan's states of mind and the clear causality in this scene allows for them to understand the context of the characters' actions (41). They are then able to morally and ideologically evaluate the characters on the basis of this knowledge (Smith, 1994; 41). Furthermore, Smith (1994) states that "With allegiance we go beyond understanding by evaluating and responding emotionally to the traits and emotions of the character in context of the narrative situation" (42). For example, Peter's heroic act of slaying Maugrim to protect his family will most likely win him a favorable ideological and moral evaluation from spectators. When the narrative situation arises in which Peter is knighted by Aslan for his heroic effort the spectator can respond to his smile and feel joy as well. Although, according to Smith (1994), this emotion will be at a tangent to the character's emotions (42). It will be a sympathetic form of emotional engagement in that the spectator will feel happy for the character, not happy as the character.

Smith (1994) notes that the spectator can engage with more than one character through the structure of sympathy (48) Aslan represents another character for the spectator to emotionally engage with through the process of allegiance. Aslan is a positive moral force in the film and many instances depict him in situations that would lead the spectator to positively evaluate him on a moral or ideological scale. In this scene

in particular, Aslan shows his honour and nobility when he holds his soldiers back from intervening in Peter's altercation with Maugrim. He states that this is because the fight with Maugrim is Peter's battle. He shows that in this battle, the goal is not to win by force. Instead, he shows that he wants Peter to grow into the hero role on his own. Since this is a morally and ideologically sound thing to do, this will lead the spectator to evaluate Aslan and form allegiance with him.

In this scene, strong causality promotes the spectator's belief in fictional narrative events so that they can go through the alignment and allegiance processes with Peter and Aslan. As has been outlined previously, Schauer's (2007) interpretation of post-classical narrative is that it is constructed for thrills and not emotional connection or thought provocation. This scene shows that a contemporary film can utilize a CG character and classical continuity techniques to develop another character as well as a relationship between characters. These two elements build upon the spectator's emotional experience of the film as they promote belief in the fictional reality of narrative events (Lefebvre and Furstenau, 2002: 84). They also are emotional events that lead the spectator to believe in the realism of the characters and their relationships.

In conclusion, a great deal was discussed in this chapter about CGI and causality. It was discovered that there is a great deal more to this relationship than a thrill ride narrative void of thought or emotional connection between the characters and audience. To review, the first section of this chapter dealt with causality in scenes that depict danger. In examining CGI and causality in *Harry Potter*, it was concluded that the continuity tradition of cutting on action seamlessly linked CGI and real elements to show causality and this positively affect the realism of narrative events. This was shown to

allow the spectator to form alignment and allegiance with the character of Ron. An analysis of causality from a similar scene from *The Spiderwick Chronicles* revealed similar as well as different results. Firstly, weak establishment of causality regarding the motivation of the antagonistic force in the scene diminished the strength of well-established causality later in the scene. However, similar to the connection in *Harry Potter* between real and CGI props, this scene's strong causality through cutting on action between CGI and real characters promoted fictional realism. Despite the problematic causality, it was still found that the spectator could engage on the alignment and allegiance levels of Smith's (1994) *structure of sympathy*.

Departing from the trends found in the previous two analyses, *Inheart* was discussed as a film that failed to establish a strong relationship of causality between CGI and non-CGI causes and effects in this scene. The filmmakers were unable to make it appear as though these characters and the CGI used to visualize the storm share the same space. This was shown to have effects on the scene's ability to achieve fictional realism and the allegiance level of specatorial engagement. With *Inheart* and *Spiderwick*, it was stressed that CGI that does not elicit the intended response should be attributed to filmmakers' misuse of the tool instead of being blamed on CGI.

The second section of this chapter dealt with causality and the development of CG characters and their relationships. In *The Golden Compass*, it was shown that strong causality was achieved through classical film techniques like eyeline matches and reaction shots to develop characters and their relationships to each other. The shot reverse shot continuity editing trope created spatial continuity for Lyra and Iorek, and also created causality for Iorek's brutal killing that develops their relationship and Iorek's

character. These were shown to be related to the scene's spectatorial engagement through the alignment and allegiance levels of Smith's (1994) *structure of sympathy*. Finally, in *The Chronicles of Narnia*, verbal commands made by Aslan and obedience by Peter create causality similar to causality created through the use of cutting on action in *Harry Potter* and *Spiderwick*. This created spatial continuity and belief in fictional realism during this scene that developed Peter's character and Peter and Aslan's relationship. These were emotionally engaged with by the spectator through the alignment and allegiance levels of the *structure of sympathy*.

The preceding chapter showed how CGI was causally integrated into scenes in a very traditional manner by using traditional editing techniques such as cutting on action, eyeline matches, and shot reverse shots. Much like the last chapter, these continuity tropes were discussed as they promoted fictional realism. This chapter introduced the Smith's (1994) concept of spectatorial engagement through alignment and allegiance to give further explanation to the emotional experience of film alluded to by Lefebvre and Furstenau (2002) in their discussion of Bazin. Instances in *The Spiderwick Chronicles* and *Inheart* where strong causality, and fictional realism were not upheld were attributed to poor choices made by filmmakers rather than the fault of CGI. In all of these examples CGI plays an important role in a process that sees the connection of causality, belief in fictional realism, and spectatorial emotional engagement. Through analysis, each of these concepts was shown to be fundamental to the success of the others. *Inkheart* was shown to falter at the causality stage, which made it unable to achieve belief in fictional realism or specatorial emotional engagement through allegiance. *Spiderwick* was shown to have a small problem with causality, but it was not a large enough problem to deter

belief in fictional realism so spectatorial emotional engagement was still possible. *Harry Potter*, *The Golden Compass*, and *Narnia* were shown to achieve all of the stages showing the strong connection between them.

In conclusion, on the subject of CGI and causality, it is interesting to note that the point of this analysis was not to show that CGI is what makes causality possible in these films. Strong causality is merely a possibility for filmmakers if they are willing to thoughtfully utilize CGI as a filmmaking tool.

Chapter 5: Conclusion

This paper addressed many concepts and concerns related to the previously underexplored topic of CGI and narrative in Hollywood children's films. The literature review attempted to present the major concerns in film literature over the changes that come with the advent of digital cinema. It also retraced the history of CGI and the use of CGI in Hollywood children's films. Finally, it outlined the classical Hollywood narrative and then addressed theorists that saw this as changing or staying the same in the era of digital cinema.

This study analyzed scenes from *Harry Potter and the Philosopher's Stone*, *The Chronicles of Narnia*, *The Golden Compass*, *The Spiderwick Chronicles*, and *Inkheart*. The first set of analyses looked at the relationship between CGI and narrative during scenes of narrative climax. It was demonstrated that CGI spectacle does not exist in opposition to narrative progression as some scholars were shown to suggest. It was shown that in some cases CGI can enhance the narrative through the promotion of belief in the fictional reality of narrative events. By drawing on Lefebvre and Furstenau's (2002) interpretation of Bazin, it was suggested that belief in fictional realism allows spectators to emotionally experience film. Through film analysis, it was argued that CGI in children's films promotes an intensification of Bazinian realism by showing several characters and actions within the same shot, thus fulfilling Bazin's stipulations for *montage interdit*.

The second set of analyses examined the relationship between CGI and narrative causality by looking at scenes that depicted danger and CG characters within the narrative. It was demonstrate how CGI can be causally integrated into scenes in a

traditional manner by using classical continuity techniques. These continuity tropes were discussed as they promoted fictional realism and emotional response from spectators. Emotional engagement was expanded upon in this chapter through utilizing the alignment and allegiance levels of Smith's (1994) *structure of sympathy*. Instances where strong causality, spatial continuity, fictional realism, or allegiance was not upheld were explained as the result of decisions made by filmmakers rather than the fault of CGI.

The tension underlying the entirety of this study is that between reality and realism. This tension can be seen in the contradiction inherent in the Bazinian model of realism. According to Bazinian realism, film should be as close to a *re*-presentation of reality as possible. In the literature review, Bazin (1967) was cited as describing film as a medium that mummifies aesthetics over the expanses of time (9). The requirements for *montage interdit* require a lack of editing, but Hollywood fiction films are never composed of a single shot taken in real time. The contradiction is that film realism and reality are not the same. By the very nature of its apparatus, film draws attention to itself and its devices as an artistic medium. Spectators do not live films. They watch them.

Problems arise when the connection between reality and film realism is assumed to be much closer than it actually is. For example, this study has tried to avoid the judgments about whether or not CGI looks realistic, or quandaries over its convincingness that usually become the focus of considerations of CGI. This study has also tried to avoid philosophizing over the strength of the existential bond between reality and the filmed image. Consideration of indexicality was problematized in this study because it represents another divergence in the multiplicity of meanings of the image. These sorts of theoretical concerns assume too close a connection between reality and

realism. The more fruitful conceptualizations of the relationship between reality and realism for this study have been the ones that allow for a looser connection between the two. For example, Lefevbre and Furstenau's (2002) "fictional realism" is a concept that suggest a more flexible notion of realism—one that is willing to bend and adapt in order to incorporate different situations and changes. Fictional realism incorporates the subjectivity of the spectator and bases the experience of a film on what seems realistic to them. Smith's (1994) concepts of alignment and allegiance also incorporate the spectator's experience of film in a way that is unique to their own perception of events.

The tension between reality and realism has always surrounded thought on film. It stems from the nature of film as a recording medium. CGI could be seen as contributing to a new form of problematic or confused realism. This is because it creates new possibilities to realistically render events that never happened. However, what most overlook is that CGI creates the ability to *photo*-realistically render events that never happened. It allows these things to look as though they were filmed, not as though they happened. No matter how realistic a film looks, the spectator will always be aware they are watching a movie. At this point, film technology is nowhere near akin to virtual reality. CGI helps filmmakers to convey narrative stories because it allows them to render story elements with enough realism that spectators do not skip a beat to pause and decipher the realism of a fiery explosion or a huge monster.

After all, it is story that drives the use of effects and not the other way around. Although it is an undertaking for a whole different study, some of what has been discussed here could be applied to the new 3-D phenomenon sweeping the cinemas. Cultural critics like Martin Morrow (2010) are already accusing filmmakers of using 3-D

for cheap thrills instead of using it for storytelling. He suggests that after the success of *Avatar* (Cameron, 2009), many films were converted to 3-D in post-production which meant the 3-D element was very loosely integrated into the films' stories (Morrow, 2010). Respected film critic Roger Ebert (2010) is also not very fond of the way the 3-D trend is developing. He sees it as a marketing ploy to appeal to the youth market that has been weakly integrated into the film text (Ebert, 2010).

What can be learned from these comments and this investigation is that when technology is integrated into the film text it not only has to look believable, but it must be believably integrated into the narrative. Otherwise, audiences would not get to enjoy the experience of being a spectator. The experience of spectatorship is central to the medium of film. If spectators get enjoyment out of a narrative and feel any emotion at all towards a world that is only made out of light and shadow, perhaps it should not really be that large of a concern whether or not indexicality is dead or narrative temporality is being disrupted because CGI requires precognitive audience reception.

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