Elvish Remedy for the Uncanny Valley: Theoretical Framework for Character Design and Development

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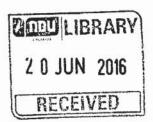
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Abstract

As technology evolved, its user reliance increased in many domains as it provided a range of new opportunities in the process of creativity and design. The notion concerning whether these advancements are improvements or not, is debatable since they gave certain results but were also the reason behind the emergence of a new problematic. In the field of animation, it is not strange to see the re-occurring term "The Uncanny Valley" in critiques of realistically animated films. This term was proposed by Dr. Masahiro Mori to describe a drop in likeness of realistically rendered characters after they exceed a certain level of realism. This phenomenon prevents the audience to empathize with the presented characters and therefore causing realistically animated film to fail in the Box Office. Despite all the research undertaken on the subject and the improvements in technology, the problem persists. This research aims at exploring new approaches to resolving this problem in the character design process, a procedure designers follow to create functional characters within a presented world. The results will present a new theoretical framework that will serve as a guide for the character design process for creating realistic characters that would meet the expectations of its viewers.

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Introduction

Animation existed long before the invention of the television and has been used throughout history as a means for visual storytelling. At its core, animation has a deeper philosophy. In Latin, "to animate" means "to give life to" an object (Wells, 1998, p 10). As a result the object animated becomes life-like, realistic, or real. This type of realism found in film was defined by Walter Disney using the term "verisimilitude", a combination of the Latin words "verum" and "similus", meaning "truth" and "similar" respectively. This defines the type of realism in film as a resemblance of truth (Christophers, 2011, p 6).

The objective of achieving realism in film has caused a lot of debate over the years as technology evolved and affected animation techniques. In the early days of cinema, traditional animation was applied by drawing visuals frame by frame to create the illusion of movement based on various animation principles. For example Rotoscoping was considered the most advanced technique in the early stages of animation; it consisted of tracing live footage onto paper. It was criticized in the beginning, since it is only a procedure of copying movement thus making the animation mechanical and not lifelike, but was later used in various animations (Christophers, 2011, p 11).

In the digital age, these two techniques gave birth to key frame animation, which is based on traditional animation where keys are placed in a timeline that depicts the position of the object in a defined space according to time. Motion capture is considered to be Rotoscoping's offspring (both present animation by recording data). It featured placing markers on the actors that are read by special cameras, which are then transferred to computers in order to trace the movement of the actor onto the virtual character. Rotoscoping and motion capture were created to facilitate and speed up the process of animation and more importantly to create more realistic animations based on photorealistic characters.

However, trying to achieve realism in animation is not without its problems. Some animators refuse the use of motion capture due to the debate between the act "of giving life" versus using "recorded data" to animate and the tension interaction between actors, inanimate props or other imaginary characters. Animating through "recorded data" is considered by some animators as cheating and a shortcut that goes against the core philosophy of animation as it fails to create a representation of life through the study of movement and performance (Christophers 2011, pp 11-14). Furthermore this use of new technology also resulted in further problems that caused these realistic animated films to fail in the box office. The most common term that appears in the critiques is "The Uncanny Valley" (Christophers, 2011, p 3).

In 1970, Dr. Masahiro Mori hypothesized that although realistic robots would appear more appealing to viewers, if the level of realism exceeded a certain point it would no longer be believable and would elicit a negative reaction from observers. This negative reaction he dubbed: "The Uncanny Valley." Even though it was originally applied in robotics, film theorists extended it to films suggesting that it can be applied to virtual characters as well (Geller, 2008). Ever since Mori first coined the term, "The Uncanny Valley" has posed challenges for animators and has elicited further studies exploring its causes and origins. Some have rooted it in biology and evolutionary theory by demonstrating the presence of the Uncanny Valley in primates (Steckenfinger & Ghazanfar, 2009) while others have proposed a more psychological root-cause based on the work of Freud (Geller, 2008; Monnet 2004). Some authors have even doubted that the Uncanny Valley even exists (Geller 2008).

The solution to the Uncanny Valley has proven much more difficult. Recent technology has offered possibilities to overcome the Uncanny Valley. In the field of animation, the proposed solutions vary between technological improvements and design approaches. Kelly Christophers summarizes these as a combination of using motion capture, key-frame animation and the

principles of animation helps improve the quality of the animation. (2011, p. 52)

As the above studies also admit, however, this technology only fixes part of the problem. These technological advancements do not seem to have improved the quality of the films from the perspective of visual storytelling and the interaction between the characters with each other in the film and with the audience as well, i.e. their functionality. The lack of functionality results from the absence of elements essential to achieving believability and acceptance of the virtual reality.

The missing key component in resolving the Uncanny Valley is proper character design, which is defined as the process with which characters functioning within a specific narrative and environment are created (Seegmiller 2004, pp. 6-7). Character design has two aspects: technical and functional. Professional character designers have developed technically more complex and popular characters and animations with the help of different artistic disciplines, the science of anatomy, kinetics and dramatic expressions and the 12 principles of animation (Withrow, 2009, pp. 18-19).

However, character design is not just about developing animation principles, as we shall see in Chapter Two. Merely developing character design principles to mimic nature is not enough. Richard Wages et al (2004, pp. 222-223) argued that creating an exact digital replica of nature will lead to negative results and provided some principles in order to achieve a degree of believability, some include abstraction in visual effects, characters and providing some small foreign elements such as camera lens flares in the film. As Bryan Tillman (2011) insists, characters must always be in the service of the story and not the other way around. For example (Fig.0.1), in Pixar's Finding Nemo (2003), character designers added some human elements to the 3D characters, placing the eyes to the front with a bump to form eyebrows and adding flexible lips (Price, 2008). The animators did extensive research on aquatic life forms and their anatomy, the ocean's fluid movements and used the assistance of aquatic science experts. The results were so impressive that

the underwater environment was too photorealistic, it was almost impossible to tell the difference between real life footage and the simulated version. This is problematic since placing animated talking fish in a photorealistic environment seemed to be out of context. The animators had to adjust their work, making the ocean seem real without being too photorealistic (Price 2008). In addition, the character "Fiona", in the movie *Shrek* (2001), was eventually reduced to match the realism degree of the movie since originally she appeared too realistic and the result was eerie (Misselhorn 2009, p 347).

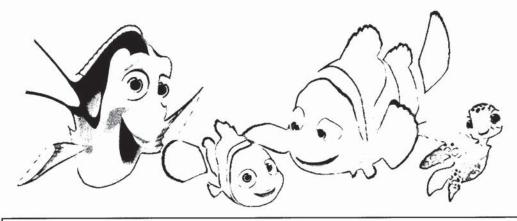


Fig. 0.1 Characters from Finding Nemo

Source: https://www.ravensburger.com/uk/characters-themes/finding-nemo/index.html

In the process of investigating the problems realistically animated movies are facing, it is clear that current solutions only tackle one side of the problem. Unlike conventional animated films that present abstracted or anthropomorphic characters, realistic animations tend to focus extensively on the technical side, leaving a weakness in the design aspect and functionality of its elements. Therefore, this thesis aims to uncover the other side of the problematic that is related to how a character *functions* within a narrative and prove that it is possible to achieve empathy with realistic characters without falling into the Uncanny Valley. Nowadays we are getting more used to seeing virtual realities (Toffoletti 2007) and with the increasing tendency towards realism in animation the question becomes: How does one design a photorealistic character that could

survive in an imagined world and convince the audience of its existence in a believable setting?

And is it possible to achieve empathy with realistic characters? What do we mean by realism?

Unlike previous attempts to resolve this issue, I shall derive answers to these questions from unexpected quarters. Some of the issues of realism, believability, and imaginary worlds, which are at the heart of the animator's concerns, were issues also at the heart of J. R.R. Tolkien's concerns, author of *The Hobbit* and the *Lord of the Rings* trilogy. What has a literary author have to do with animation? Tolkien was obsessed with the question of how to intensify the reader's belief in the imaginary worlds he was creating and he explicitly discussed these questions in his famous lectures "On Fairy Stories" (1939).

Since myths were a crucial element in Tolkien's work, it's necessary to study the works of the famous expert on mythology, Joseph Campbell, who shared similar views on myths as Tolkien particularly what he had to say concerning myth narrative structures and the journey of the Hero character within it. He discusses the crucial presence of different characters archetypes in the story and their interaction with each other in order to create a complete and meaningful storyline that people could relate to (Campbell, 2004). The result is what I have dubbed the "Elvish Remedy," a character design and development theoretical framework for achieving believability and overcoming the Uncanny Valley.

This study could result in a new approach to design photorealistic characters that could prove to be the answer to resolve the uncanny effects occurring in many photorealistic animated films. Important as this may be, it is beyond the purview of this thesis given the constraints of word limit and time. The focus, therefore, will be on developing a character design theoretical framework (not technical criteria) and applying them to several case studies.

¹ The choice of Joseph Campbell over other mythologists, like Mircea Eliade for example, is deliberate. Campbell, as this thesis is going to show, paid particular attention to characters and their functionality within a narrative, which makes his analysis of myths much more relevant for this thesis's focus on character design and development. There is the additional reason, which we will show in the case studies, that Campbell had an active role in the creation of Star Wars, a modern day myth and movie.

Chapter Outline & Methodology:

In **Chapter One**, I will begin with a brief history of animation, its principles, the techniques and technologies used in the production process. In **Chapter Two**, animation will be narrowed down to one of its main elements: characters. In this chapter, the process of character design will be explained in detail along with its principles, techniques in character development and a brief explanation of the different kinds of 3D software and technologies used, leading to the presentation of the problematic.

In Chapter Three, I will explain the Uncanny Valley and its current proposed loopholes. These points, previously discussed in other dissertations, will form the general information needed for narrowing this study to character design. Furthermore, theories about realism, abstraction, visual communication and perception of simulations will be drawn to add further escapes to the Uncanny Valley. Based on overlapping theories drawn from animators, philosophers and psychologist, the proposed solution in thesis will be identified and discussed in detail in the following chapter.

Chapter Four will provide a thorough explanation of the theories proposed by J. R. R. Tolkien and the theories of Joseph Campbell to develop a theoretical framework to be followed by character designers and developers for overcoming the Uncanny Valley, what I have called the Elvish Remedy.

Chapters Five and Six will each be a study of case studies, in light of the theoretical framework developed in Chapter Four. Chapter Five consists of two case studies that have proven their success in overcoming the Uncanny Valley. The analysis of these two case studies will explain why they have been able to do so verifying the theoretical framework developed in Chapter Four. Likewise, Chapter Six consists of three case studies that have fallen victim to the Uncanny Valley. The analysis of these three case studies will explain why they have fallen into the

Uncanny Valley thereby verifying the theoretical framework developed in Chapter Four.

Each of these films is listed below, according to the chapter it belongs to and with an

explanation of its purpose in this thesis.

Chapter Five (Case Studies that have overcome the Uncanny Valley)

1-The Lord of The Rings Trilogy

This Trilogy is the most efficient example to use as a test sample to compare with Tolkien's notion

on Sub-Creation since it features Peter Jackson's vision of Tolkien's magnum opus implemented in

cinematography. It also presents the use of ground-breaking technology (for its time) that inspired

a generation of films and games.

2-Star Wars

Since Star Wars was directly inspired from Joseph Campbell's Monomyth, it presents a well-

organized test sample to follow Campbell's theories accurately. Furthermore, the comparison of

the success and the cultural impact of the original Star Wars, as opposed to the more recent less

successful preguels, is another important factor to the selection of these films.

Chapter Six (Case Studies that have fallen victim to the Uncanny Valley)

3-Final Fantasy: The Spirits Within

This film presents the first animated film that featured realistic 3D characters and was also the

film officially criticized for falling in the Uncanny Valley. The film was praised for its impressive

graphics but failed to achieve any success. Studying this film as "Ground zero" will prove to be an

important clue for this investigation.

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4-Beowulf

A realistically animated film which featured an improved motion capture technology, even more realistically detailed characters and improved eye movement animation technology. Despite the popularity of the myth in its epic form and the improvements of the technology used in the movie, it did not achieve any significant success.

5-The Adventures of Tintin and The Secret of the Unicorn

An animated movie that featured realistic characters where the Hero follows a more modern character archetype based on a modern myth. The film received more success than its predecessors. The film won a Golden Globe for animated feature and was nominated for other awards but the characters of the film were still criticized for falling in the Uncanny Valley and their lack of believability.

The analysis of each film will follow a similar structure: First, background information on each film will be provided in order to have a clearer understanding behind the characters' design and the presented setting followed by an analysis based on the theoretical framework of Chapter Four.

This comparative study could be accused of subjective conclusions and generalizations of the results concerning particular films, through the limitation of the number of case studies written on each movie from a design and narrative perspective. However, five films from different genres will allow this research to be conducted as objectively as possible within the limits of an MA thesis. Even though this thesis tackles a global issue, distributing surveys and questionnaires in Lebanon and/or online would result in very subjective results since taste differs between cultures. Reviews from specific critics could prove difficult to reduce to a percentage and web-based review

websites are often too skewed with no clear quantifiable criteria or variables.

Chapter Seven, the concluding chapter, will wrap up the thesis and summarize what has been achieved so far and discuss possible future avenues of research.

Chapter 1

Animation

The notion of visual story telling is not a recent one. Moviemakers have been using techniques established since the beginning of civilization to captivate their audiences and cause them to suspend disbelief. In 645 BC, it was Ashurbanipal, King of Assyria, who departed from the conventional written storytelling medium and used visuals to promote his rule and narrate the stories of his victories to his people (Spivey, 2005). The King presented his story in a series of 2D flat carvings forming a storyboard featuring: a plot, himself as the hero, the Elamites as his enemies, subplots, gruesome war scenes, fights with lions (as it was inspired from the Story of Gilgamesh), colors (red to symbolize blood) and a happy ending. But the characters could be distinguished from each other from certain small elements and barely showed any expressions.

The Greeks further developed this art of visual storytelling by adding facial expressions to the sculpted characters at the moment of maximum emotional tension. This can be seen in the sculpted statues of Odysseus, his companions and the Cyclops which were found in a cave, used as a dining room where guests would be entertained, at the coastline of Sperlonga in Southern Italy (Spivey 2005). Both examples displayed separate approaches that were not combined until the Roman tower dubbed as "Trajan's Column". Built in 113 AD, it still stands today and is considered as one of the most important monuments in roman architecture and visual storytelling. The column measures 29.77 meters in height with a diameter of 3.5 meters. It presents engraved visuals that spiral the column 23 times, telling the story of emperor Trajan's victory over the Dacians (Del Monte et al., 1998, p. 404). The interesting aspect of Trajan's Column is not only that it combines the techniques used in the previous examples, but it adds further approaches that are used nowadays in film making: full cast of characters, different perspective (camera) angles

and director's cut, portrayed on the column by the same shape of a tree to differentiate between different scenes in the plot (Spivey 2005). These approaches in visual story did not only provide the basic techniques for film directors to use in order to create a captivating story including characters with whom the audience could relate, but these techniques brought objects, statues and drawings to life in order to communicate the story, this refers to the core principle of animation.

The term "animation" is derived from the Latin word "anima" which means "soul" and the Greek "animus" means "wind" or "air" (Papapetros, p. 12) therefore the process of animation is "to give life to" or "breathe life into" an object (Wells 1998, p 10). This concept can be found in art and religions of many cultures. The most obvious example is the creation of Adam from the earth and brought to life by God (Mitchel 2005, pp 277-278). According to Mitchell (2005), this act occurs naturally between human beings and any form of visuals (objects, sculptures, images and pictures). Pictures will have certain influences and demands from humans who in return will also react to them.

This action and reaction was discussed in previous notions by Wilhelm Worringer (1881 - 1965) and Rudolf Arnheim (1904 - 2007). In his book *On The Animation of the Inorganic: Art, Architecture and the Extension of Life*, Papapetros explains Worringer's theory of empathy as the projection of one's self into the object, therefore it's the subject acting upon an object. (2012, pp 4-6) In colloquial terms, "empathy" is defined as the ability "to put oneself in another's shoes" (Misselhorn 2009, p 351). Through this ability humans are able to experience the state in which external elements, even inanimate object, of the world are being presented. Papapetros then refers to Arnheim's criticism of this notion, relying on the incident of Saint Catherine of Sienna and Giotto's Navicella to illustrate his theory. Saint Catherine is praying in front of the mosaic, when she suddenly feels the boat in the painting fall on her shoulders making her collapse under its unbearable weight which left her paralyzed from the waist down until her death three months

later. Arnheim argues that in the animation phenomenon it's the objects that acts on the subject (Papapetros 2012 pp 4-6). These two older theories (Worringer and Arnheim) even though in opposition complement each other and explain the recent process that Mitchel (2005) describes concerning the communication that occur between human and pictures that are brought to life. These theories, even though philosophical, will establish the basis of the explanation in the chapters concerning animation techniques, their principles and the process with which the viewers could relate to the presented animated visuals.

1.1 Modern Day Animation: The Persistence of Vision

Nowadays, the concept of bringing an object to life can be extensively seen in animated feature films. It has become easier to accomplish with today's technology and our increased knowledge of time and movement (Webster 2005 p. 3). First, it is important to discuss the human ability to perceive a moving image. A moving image consists of individual pictures of objects in different positions throughout time; these series of images will create an illusion of movement. It is possible to perceive this illusion by projecting each image (using light) onto the eye's retina in succession. This process is called "The Persistence of Vision" where each image would briefly remain engraved on the surface of the retina even when the light is off (this retention period is approximately 1/10 of a second). This small delay of the imprinted image being merged with the next projected image will allow us to perceive this illusion of movement (Webster 2005 p. 4).

For an animator this process of frame projection is expressed through time, the most important tool for any animator. Time is crucial to the expression of different types of movement, whether it's natural, cartoonish, dramatic, comic, etc... The rate of the projection of frames throughout time is measured by "Frames per Second" (FPS). This projection rate could vary from one animator to another, keeping in mind, based on the "Persistence of Vision", that if the FPS

was below the retention rate mentioned earlier (1/10 of a second), the animation will appear jerky or unsmooth (Webster 2005 p. 5-6). The most common projection rates are listed as such:

- 24 FPS for film
- 25 FPS for PAL videos
- 30 FPS for NTSC videos

1.2 Principles and the Study of Movement

As mentioned, 'time' plays a crucial role in the expression of movement. It is the animator's role, through the excessive observation and study of movement and the behavior of objects or subjects from the real world, to use time in his favor to visually express a meaningful and convincing animation (Webster 2005 p. 12). Disney insisted that the animation should present a certain degree of "Verisimilitude". The words, Verum and Similus, Latin for "Truth" and "similar" respectively (Christophers 2011 p 6). The point was to create an animation that is not copied from nature as it is but acts as if it's natural. In order to achieve this objective, many principles of animation were established throughout the years to help animators as guidelines for their work. These principles can be found explained in different books under various names but the concept remains consistent. "In order to do the fantastic, we must first understand the real." (Walt Disney quoted in Webster 2005 p. 6)

To further explain the importance of timing in animation, the basic approach is to consider pacing, phrasing and timing of the events that occur in the film (Webster 2005 p. 12). It is crucial to consider the pace between the different sequences of events in the film to create action, drama or tension and merge them to create a unified entity. Phrasing is more related to character animation (see Chapter Two). It refers to the variation of a character's speed within a certain scene, used to express a character's excitement, panic, drowsiness, etc... The final aspect of

animation timing is timing itself, which refers to the period of time it takes an object to accomplish its movement, the duration of a walk cycle or a run cycle for example (Webster 2005 pp 12-14).

Now that the issue of time has been discussed, it is important for the animator to consider the laws of motion since animation requires a detailed study of objects in movement. Animated objects should act and react to each other as objects from the real world would (a heavy object would fall differently than a feather due to its air resistance, while objects falling in a vacuum would hit the ground equally), therefore relying on Newton's laws of motion (especially the 3rd law) would offer an adequate basis for animators (Webster 2005 pp 14-18). As Newton's 3rd law suggests, every action is met with an equal and opposite reaction. This phenomenon can be seen in many cartoon animations where the principle of squash and stretch is applied to visually exaggerate forces applied on an object and make it look more appealing and less rigid. The degree of the squash of stretch can vary from one object to another (a rubber ball could deform more than a glass bottle) and from one film to another based on the design or the level of realism presented (Webster 2005 p 22).

Motivation is another element an animator must consider when animating a character. This describes the movement that appears to be coming from within the subject as if they were intentionally designed to move in a specific fashion when conducting an action (the motion of a salmon leaping out of the water while it heads upstream in a river is an accurate example) (Webster 2005 p 70). This follows the concept that all subjects and objects are elements of nature and bound to its laws. Acting or performance is another form of approach that makes a character seem to be animated based on certain psychological or emotional drives (Webster 2005 p 70).

Finally, 'anticipation' is another crucial category of animation principles that makes the motion of characters more believable. It focuses on the sequence of movements a body undertakes

before applying an action, such as pulling or pushing a heavy object, throwing a rock, a jump, etc (Webster 2005 pp 97-99). It presents the process a character undertakes to build up to a certain action, maintaining balance while performing it, the level of efficiency achieved in the action (the anticipation of an adult throwing a small rock with masterful precision is a lot different than a child's throw of the same pebble). Furthermore, a heavy character's walk completely varies from a lighter character as their weight and balance play a major role in their movement.

In order to understand these guidelines, students are usually advised to draw (using pencils) live figures from everyday life and study their motion. Even with digital animation where technology offers efficient tools for the animator to use, observational references from different mediums (photography, liver observation, art, etc...) are always beneficial. There is a lot of information to process from facial expressions to the different degrees of movement in characters. An animator must consider the main and primary movement of a walking character coming from his center of gravity (the pelvis) to the secondary movement of the hands, head and tertiary movement of his hair, clothes, carried props and covering all overlapping movements (Webster 2005 p 37).

1.3 Techniques and Medium

Key framed animation² can be applied in two different ways: Straight-Ahead and Pose-To-Pose animation (Webster 2005 pp 24 - 27). In the Straight-Ahead technique, the animator draws the first frame containing the first position of the animated model, then goes on drawing the next frames and positions chronologically to form the illusion of movement. This technique allows the animator to charge through the creative process of his animation and give it more liveliness, since the animator works in an unstructured method that is useful with animations that feature a

² Key Framed animation consists of manually presenting, in different frames, the position of an object or a character throughout time (Christophers 2011 p 5).

number of actions occurring at once with independent elements that have their own timing. The down side of this method is its complexity and consumption of time. The fact that this approach is unstructured, adds pressure on the animator as it requires a great deal of focus and skill to be perfected. As for the Pose-To-Pose approach, it involves the drawing of the key moments of a specific movement and then adding the in-between frames (this approach cannot be applied on motion capture animation). Its efficiency in producing animations allowed it to become a standard approach in the industry. This technique is also reliable with the organization of work in teamwork, as one group could work on the primary or key positions, another team could fill in the in-between frames and allows an easy synchronization between animation and sound or lip-sync. But since this method is structured and constructed, the risk of having a stiff, unnaturally constructed movement is higher. Despite its efficient and more manageable techniques, Pose-To-Pose animation still requires a good amount of skills as the animator might be forced to use a mix of the two explained techniques to cover any possible mistakes or rigidities in the animation (Webster 2005 pp 24 - 27).

These techniques are still used to this day. But with the incremental acquisition of knowledge on animation and the evolution of technology, new techniques were created to facilitate the process of bringing images to life and more specifically animating realistic characters. One of the early developed animation techniques that came after key framed animation was Rotoscoping which is still relevant to this day (Christophers 2011 p 11-12). In this technique the animator traces motion from recorded footage. This technology is now considered as the primary form of motion capture. The latter presents one of the most advanced technologies used in the animation industry. It records movement based on markers placed on the actor, which represent specific point on a digital model. Therefore, the digital character will move according to the movement of the actor. These last two technologies were criticized for lacking commitment to the

core principle of animation discussed in the previous section. Since Rotoscoping involves copying or tracing movement from a recoded footage into digital or drawn model; and Motion capture saves data, from the movement of an actor in a special suit, that is imported into the digital model in order to apply the movement, these processes conflict with the act of giving life as they tend to copy life instead of creating it. These technologies were unable to achieve the same smoothness and appealing animation as the key frame approach, but have proven to be highly efficient in time and capturing a detailed movement for photorealistic characters (Christophers 2011). According to Christophers (2011, pp. 51-54), some characters were animated with a combination between motion capture, rotoscoping and key frame animation to achieve the best results efficiently. Gollum (Fig. 1.1), from the *Lord of the Rings* (*The Two Towers* and *the Return of the King*), was animated through various techniques especially that the character presented movements that were impossible to achieve by a human actor, therefore making the use of motion capture irrelevant, freeing the animators to resort to key frame animation. Furthermore all the characters facial expressions were also key-framed.



Fig 1.1 Gollum Source: http://www.speters.or g/misc/gollum.html

1.4 Conclusion

These techniques and principles present the primary elements in applying animations. Other elements include sounds design, lyp-sync, environment design and acting to name a few. All of those lead to animations as a result that features various elements that are crucial to visually communicating with audiences. Animation most succeeds, however, when it is visually anchored in characters. Therefore, crucial to the animation process is character design and development, which is this why thesis focuses on characters as one of the most important elements in animation and the primary object on which the mentioned technologies are applied. In the following chapter, the reasons behind the choice of characters as a focus for this thesis will be discussed as it forms a crucial element in establishing relations between animation and audience.

Chapter 2

Characters: Design & Development

Since animation is a form of visual communication (whether it's for story telling in film, commercials, promotions, etc...), in order to create a captivating performance, the audience should be given proper means to relate with what is presented. Characters are the most efficient elements in animation that allow the audience to do so. Nowadays, most people have access to the various tools to create characters with different styles and mediums. From the availability of downloadable software, purchasable hard copies of the programs, the rich number of tutorials found online and the convenience of user-friendly technologies. Almost anyone has the possibility to produce visually an illustration of a character with impressive skills, but is the result functional from a visual communication and storytelling point view? This chapter aims to define the differences and relations between Character Design and Character Development.

2.1 Character Design

Stories, whether verbal, written or visual based, all feature characters populating the world it represents and set its events into action. Not only do they play a crucial role as a storytelling function but they are responsible for triggering reactions from the audience, creating bridges with which the audience could use to further identify with the content of the plot (Seegmiller 2004, pp. 4-5). Regardless of the medium (games, films, cartoons, comics, commercials, etc...), character design is defined as the creative process in which a character is created to function within a specific environment and a narrative (Maestri 2006, p4). The better the design is, the better the character can fulfill the expectations of the audience and causes them to relate to it. There have been a great number of successful and influential character designs that have lasted ages and are

still considered relevant to this day (Mickey Mouse, Bugs Bunny, Darth Vader, Indiana Jones, Lara Croft... to name a few). So how can a good character design be achieved?

In his book "Creative Character Design", Bryan Tillman (2011) stresses that characters are always in service to the story and never the other way around. In order to maintain its function in the story, there are many elements the designer should consider while designing his characters (Seegmiller D. 2004 pp. 7-11). These elements could be summarized as the following: Character Archetypes, Background Story, Shapes, Colors and Aesthetic.

2.1.1Character Archetypes:

The term "Archetype" was originally coined by psychologist Carl Jung (1875 - 1961). While studying the notion of the conscious and the unconscious mind, Jung discovered characteristics that reoccur in many characters and grouped them into categories. These represent qualities individuals identify with themselves and others they encounter (Bryan 2011 p 11). A number of 'character archetypes' can be found in every story throughout history, whether it's a fictional narrative, a historical event or an everyday event. The most common of these archetypes is the Hero. Joseph Campbell (1904 - 1987), a scholar of world mythology and an admirer of Jung, defined the Hero as "someone who has given his or her life to something bigger than oneself." The Hero's deeds can appear in two forms: the physical deed where the Hero achieves brave acts in battle and/or saves lives; and the spiritual deeds which teaches the Hero a spiritual lesson and he comes back to pass it on (Campbell & Moyers 1988). In order for the Hero, the protagonist, to exist an antagonist must be designed which leads to the shadow or villain archetype. The latter is psychologically connected to our instinctual animal past or actions, this archetype is usually perceived as a ruthless, mysterious and evil character (Bryan 2011 p 13).

Once the primary archetypes have been defined, the secondary ones provide the means to create a more colorful and convincing plot. Of the secondary archetypes, the mentor, the trickster, the fool and the anima/animus are the most common. The mentor is usually considered as an older, wiser character that trains or aids the hero. Campbell lists the mentor as one of the many "Helpers" on the good side (Campbell 2004, p 66). The fool is a type of character that acts in a confused state and usually gets everyone in undesirable states (could be placed on the good or evil side) (Bryan 2011, p 14). Just like the Fool, the trickster could either fall on the good or evil side but in both cases the trickster aims to direct the events of the story to his favor, just as a puppeteer controlling the puppet. The trickster usually presents the most challenging mental tests to the Hero and therefore models or modifies the Hero's character to the one he/she is by the end of the story (Bryan 2011, p. 19-20). The anima/animus usually represent human urges bottled in one character, it could fall on both sides and is usually used to draw the audience more into the story (Bryan 2011, p 15-16).

Table 2.1 presents some examples from *the Star Wars* series that follow accurately the archetypes defined earlier:

The Hero	The Shadow	The Mentor	The Trickster	The Fool	Anima/Animus
Luke Skywalker Han Solo	Darth Vader	Yoda Obi-Wan Kenobi	Senator Palpatine (Darth Sidious)	Jarjar Binks	Chewbacca
The two listed Heroes represent different instances of the same archetype.	Darth Vader presents the protagonist that Luke Skywalker must defeat.	Two Different characters of the same archetype.	Senator Palpatine tricked the senate to give him absolute power.	Jarjar is a clumsy character who got banished from his homeland and got other characters in trouble including him.	An animal based character that helped Han Solo in his adventures. Known for his brute strength and got his companions trapped by Ewoks because of his hunger urges.

Table 2.1 Star Wars character archetypes (based on personal interpretation).

2.1.2. Background Story:

As humans we are curious in knowing as much as possible about people in interest. According to Mitchell (2005), we tend to treat images we create as living things. Since characters are always in service of the story, providing adequate information and creating a background story for every character is a crucial element in the design process, this results in the increase of believability of the audience in the character. A good character design should answer the following questions: "who is he/she? What does this character do in the narrative? When and where does this narrative take place? Why is this character motivated to do what he/she does and how does he/she do it?" The more the information provided the better the concept of the character will be. In the cases where the designed characters already existed in previous narratives or is influenced from similar cultures, prior research is a major element in the process (Bryan 2011, pp 25-41). For example, the character profile of both animal based characters Wile E Coyote (fig. 2.2) and Bambi (Fig. 2.1) is quite different and replacing them with each other's places would result in a weak story structure. Each character has a specific role to play in the narrative in which it is presented and has a difference approach of communication with the audience (Withrow 2009, p 18).



Fig. 2.1 Bambi (Left)

Source:

http://disney.wikia.com/wiki/Bambi %28character%29

Fig 2.2 Wile E. Coyote (right)

Source:

http://www.feministe.us/blo g/archives/2010/09/29/fear s/wile-e-coyote/

2.1.3 Shapes, Colors and Aesthetics:

The process in the previous sections involves brainstorming a concept of a character (using written bullet points most probably). This part explains the visual process based on whatever concept conceived in the prior section. First, the study of shapes (organic or geometric) and colors will have a major effect on the creative process and the efficiency of the character in communicating visually and create empathy with the audience. Reducing a character to its basic shapes helps the designer to isolate its essential symbolic meaning, the circle shapes used to create Mickey Mouse's influential silhouette or the rectangular shape with triangles on top of Bart Simpson's head (Withrow 2009 p 19). But what do these shapes mean? And how can they help with character design?

Identity designer, Maggie Macnab (2008) explained in her book "Decoding Design: Understanding and Using Symbols in Visual Communication" how numbers and shapes can be found in nature and have influenced cultures through their archetypal symbolic meaning that communicates at an instinctual level. Macnab goes further to deconstruct logos to illustrate how basic shapes were used to communicate complex information. Table 2.2 shows the list of shapes based on numbers and their symbolic meaning as explained in Macnab's (2008) book.

Number	Associated Typical Shapes	Symbolic meaning	
1	The Circle	Wholeness/emptiness (in some cultures), Perfection, integrity, unity, etc	
2	The line, The Mandorla	Duality, opposition, separation, etc	
3	The Triangle	Balance, Divine Trinity, Solution to duality, Transformation (Male + Woman = Baby)	
4	The Square	Strength, Stability, fidelity, predictability, depth, etc	
5	Pentagon, Golden Spiral, Pentagram	Man, Health, love, life, creation, regeneration, etc	
6	Hexagon	Efficiency	

7	Heptagon	Virginity, Magic, perfection, etc
8	Octagon, Mobius Strip	Completion, Loop, Infinity, etc
9	Enneagon	Peak of Experience, Highest and ultimate level, etc

Table 2.2 Symbolic meaning of shapes (Macnab 2008)

Source adjusted from: Macnab M. (2008), "Decoding Design: Understanding and Using Symbols in Visual Communication", F & W Media

Bryan Tillman (2011 p 67 - 74) argued that even though the meaning of the shapes does not directly reflect the character's focal point, using the right shape leads to a better representation of the character. Tillman used the same meaning for the first three shapes presented earlier and gives extra possible meanings (Table 2.3):

Shapes	Symbolic meaning	example
The Circle	Completeness, Gracefulness, Playfulness, Comforting, Unity, Protection, Childlike.	
Triangle	Action, Aggression, Energy, Sneakiness, Conflict, Tension.	
Square	Stability, Trust, Honesty, Order, Conformity, Security, Equality, Masculinity.	

Table 2.3 Shapes in character design

Source adjusted from: Tillman B. (2011), "Creative Character Design", Elsevier Inc.

The process of reducing the character to its simplest shape is not always applied to the simplest level as shown in the pictures in table 2.3. The degree of reduction is defined according to the concept and more importantly the audience in question. A character designer must take into consideration the character's audience in order to create the most visually efficient character. One important aspect of the viewers the designer should consider is age (Bryan 2011 p 104). It plays a crucial factor on the level of details required to be presented by each character. Humans are able to identify and decode information presented by characters; the simpler and anthropomorphic the design, the easier the process (Withrow 2009 p 19). Therefore, a child's brain can process much less visual information presented by a character, as for an adult can process much more and demands more interesting and complex shapes. That is why children are attracted to character with basic shapes (usually big heads and small bodies that makes identifying emotions easier) and adult seek more developed characters with similar body proportions as our own taking into consideration the abstraction of some features of the body through exaggeration.

But as the characters become more complex, they should remain visually clear of each of their elements work. Robots for example, are made of different parts that work together to form a bigger entity that is able to function and move. For instance, the designer should take into consideration how the parts of the legs work together in a single mechanism in order for the robot to move. Another problem which designers face when modeling humans, is the addition of extra limbs (wings, extra pair of arms for example). A four armed character should have extra shoulders for the extra pair of arms to be placed into its socket; otherwise if the arms should come out from the side of the torso, there is no logical explanation of how the character will be able to move them (Bryan 2011 pp 81 - 84). Therefore, research of visual references of skeletons, human anatomy, birds (if the character has wings) or any visual of an object that is related to the character is always recommended.

2.1.4 Examples and Presentation:

In order to clarify the process discussed in the previous sections, examples of character designs are presented and analysed below accordingly.

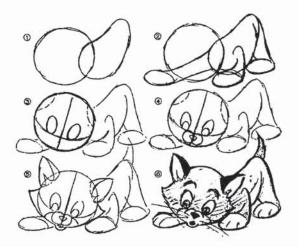


Fig. 2.3 kitten character design

Source: Blair P. (1994), "Cartoon Animation (Collector's Series)", Walter Foster Publishing Inc. P 35

This is an accurate example of using basic shapes to form a character for a cartoon (Fig. 2.3). The childish and playfulness of the character falls in the category of the circle used, a medium used extensively in many children's cartoons especially Disney cartoons. The simple shape of the kitten is effective in communicating the emotion presented (curiosity, surprise) which is appealing and easily empathetic with children.

The next examples can be found in the successful game "God of War 3" and feature more complex characters, starting with one of the more visually challenging character in the game: Poseidon.

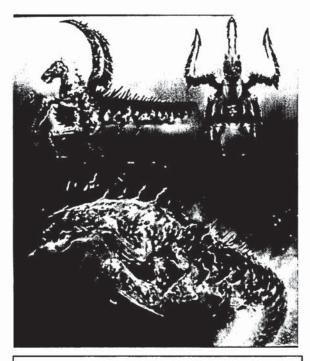


Fig. 2.4 Poseidon's Limbs in monster form presented in concept art and turnaround or T-pose

Source: Wade D. P. (2010), "The Art of God of War III". Balistic Publishing. p. 42

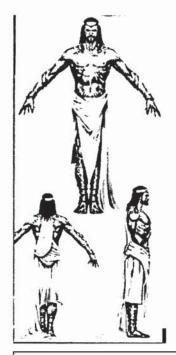


Fig. 2.5 Poseidon in human form presented in T-pose Source: Wade D. P. (2010), "The Art of God of War III". Balistic Publishing. p. 37

In the game, Poseidon first appears in humanoid "God form" on mountain Olympus where he jumps into the ocean and uses its elements to turn into a giant sea monster that the player should defeat (Fig. 2.4 & 2.6).

In the picture presented in Fig. 2.5, Poseidon is presented in a turnaround with a "T-pose". This position does not show action but it used to further develop and model the character in 3D since it provide information of how the character looks like from all sides.

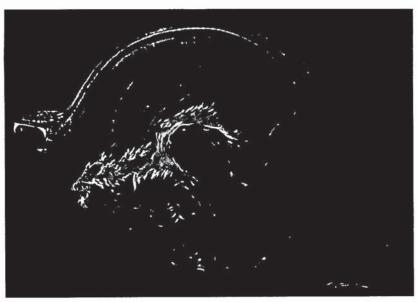
It is possible to see the extensive study done on the muscles, toga and tattoos of the ancient Greek God. The curvy spirals can be a use of the symbolism of the number five as explained in table 2.2 as an archetypal symbol of life and movement. The next picture presents Poseidon in his monster form.



Fig. 2.6 Poseidon in complete monster form presented in concept art Source: Wade D. P. (2010), "The Art of God of War III". Balistic Publishing. p. 40

The designers wanted the player to fight each limb by itself until the end where he/she realizes that the limbs are part of a much bigger entity. The use of horses is a symbolic reference to Poseidon since in Greek Mythology; this particular God is the creator of the first horse. In this visual, the design is presented in the form of Conceptual Art or Fantasy Art where the character is always shown in action with exaggerated features, weapons, drawn from a lower point of view to create a "Larger than Life" aesthetic (Fig. 4). The limbs/Horses were also carefully designed, featuring a mixture between a horse and an aquatic creature, keeping the form of the trident if the

character was seen from a front view. Fig. 2 features both presentations (turnaround and Conceptual Art).



d

Fig. 2.7 (left), 2.8 (right) The chimera in concept art and sketches
Source: Wade D. P. (2010), "*The Art of God of War III"*.

Balistic Publishing. pp. 70-71

The final example is the Chimera (Fig. 2.7) found in the same game. The designer changed the concept of a typical Chimera from Greek Mythology and aimed to design the character so the player can fight it in 3 different modes (Fig. 2.8). In the first mode (first sketch on top in Fig. 2.8), the character is standing on all four legs to allow the snake to move more easily and attack the player. The second mode features a crouched chimera with the head of the goat (placed above the lion head that is looking down) being active. The final mode is enabled after the player defeats the goat head, the chimera stands straight on its back legs as a humanoid attacking with its jaws and

hands.

2.2. Character Development

After coming up with the character's concept and sketching the artwork and various poses, if the medium is in 3D, the sketches will be sent to a 3D character modeler to start developing the concept so the character could be rigged (placing bones in the model so it can be moved) and animated. This section discusses briefly some techniques used to model and animate characters, dividing the software used according to their use and purpose.

2.2.1 Sculpting:

Zbrush and Mudbox are two stand alone, very popular sculpting software that can be accessibly purchased for commercial, private and educational use. Sculpting software provide the digital space, sculpting tools, some basic shapes (spheres, cubes, etc...), textures and paint brushes for creating extremely detailed models of characters or any other object (Fig. 2.9 & 2.10). The basic method with which these software function involves deforming a 3D objects made out of polygons welded together to form a surface. The standard brush in Zbrush for example, raises the polygons based on the direction of their normal vector. A normal vector is the perpendicular vector originating from the center of the polygon. Zbrush calculate the average normal vector of all the polygons in the affected area of the brush as the user clicks and drags the mouse over the model (Keller 2011). The user is given the option of subdividing the polygons to get the finest details which makes the end result impossible to rig and animate, due to the extremely large amount of polygons available. This approach in modeling a character, allows the creation of a hyper realistic or detailed character that can be presented as a still or a turnaround video (still character rotating so the viewer can see it from all sides). Furthermore, these programs provide a solution to this issue by giving the option of exporting texture maps and displacement maps, which can be applied

on low-poly models in other software to create high detailed illusion of the sculpted character.



Fig. 2.9 A highly detailed model of Poseidon in Human form sculpted using Zbrush by Kevil Anderson. The turnaround drawings presented in the design section were used to model this 3D digital sculpture.

Source: Wade D. P. (2010), "The Art of God of War

III". Balistic Publishing. p 106



Fig. 2.10 A highly detailed model of one of Poseidon's Limbs in monster form sculpted using Zbrush by Katon Callaway. The turnaround drawings (Fig. 2.4) presented in the design section were used to model this 3D digital sculpture.

Source: Wade D. P. (2010), "The Art of God of War III". Balistic Publishing. p. 107

2.2.2 Modeling, Rigging & Animation:

There is a large number of 3D animation and modeling software available for private, commercial and educational use. Some popular ones are: Autodesk 3ds Max, Autodesk Maya, Cinema 4d and Soft Image XSI.

One of the basic approaches used to model a character using 3d software is box modeling (Franson & Thomas 2007). The process consists of using a single cube, expanding it by extruding its polygon and shaping the character by tracing the turnaround illustrations provided by the designer (as discussed in the previous section). There are more approaches, such using a single polygon or Nurbs (curves) to model. The result is a model with a low to average polygon count that can be exported to a sculpting software to get some detailed modifications and to create any extra displacement maps. But before exporting the model, it is necessary to identify the UVW³ mapping of the textures. This mapping process helps identify the different parts of the character so the user can place the right texture in its right place by dissecting the different parts separately. Exporting a model to sculpting software is not always necessary if no details needed to be added, 3d software provide the tools to add textures (color, displacements, reflection, refraction, etc...) to the model. After finishing all modeling and texturing procedures the user can then add bones to the model by using the bone tools provided in 3d software so the model can later be animated according to the joints and bone locations (Fig.2.11). The animation can either be done manually by key frame or, some software such as 3ds max has a built in motion capture reader that can import motion capture recorded files into the skeleton; otherwise the skeleton can be exported to other software for motion capture animation.

³ UVW is a common coordinate system for texture mapping found in 3D animation software.

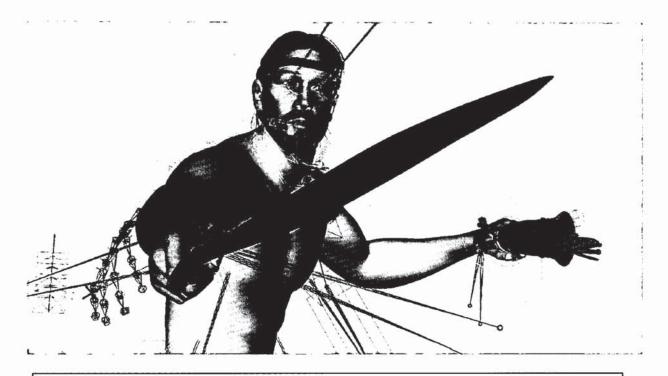


Fig. 2.11 A rigged 3d model of Beowulf in early production. Original copyright to Sony Imageworks.

Source: Geller T. (2008). "Overcoming the Uncanny Valley", *IEEE Computer Graphics and Applications*, IEEE Computer Society. p 15

2.3 Conclusion

Nowadays, it is difficult to ignore the ease of accessibility of users to the above mentioned animation techniques and modeling and sculpting software; not to mention the availability of online tutorials (both video and web pages) and purchasable training DVDs released by professional training facilities and companies. These allow many animation and character enthusiasts to learn these tools and apply their own ideas. Furthermore, the evolution of technology has allowed the emergence of a new style of animation that focuses on realism. But realistic characters do not seem to have the same cultural impact as cartoon or abstracted characters. Despite the fact that the design principles already exist and are being implemented to a certain extent, a problem still haunts the animation and character design and development

process, which is reducing the believability of characters. The terms that keeps appearing, whenever critics and animator discuss the reasons behind the failure of realistic characters, is the notorious "Uncanny Valley". In the next chapter, The Uncanny Valley phenomenon will be discussed in details with its current criticisms, in order to relate it with character design and the proposal of a new possible solution.

Chapter 3

The Uncanny Valley and its Loopholes

As suggested in the conclusion of the previous chapter, with the evolution of technology a new genre of animated movie emerged that focused on realistic elements. In 2001, *Final Fantasy: the Spirits Within*, the first fully realistically generated animated movie was released (Monnet 2004). Even though the film was praised for the beauty of its CGI (Computer generated imagery) and technological achievement, the film suffered heavy losses and was such a failure in the box-office that the production company, *Square* Studio, had to shutdown. One of the recurring terms that appeared in the critiques and discussion on the reason behind the failure was the "Uncanny Valley", a term proposed by roboticist Masahiro Mori in 1970 (Geller 2008). In this chapter we will explore the definition of the Uncanney Valley, some of the solutions offered, and the remaining loopholes.

3.1 The Uncanny Valley

The notion of "The Uncanny" dates long before Mori. Ernst Jentsch (1906) was one of the prominent writers on the subject especially with his essay "On the Psychology of the Uncanny" in 1906. In the process of studying this phenomenon, Jentsch focused on the psychological study of a subject's emotions while experiencing an uncanny effect, rather than exploring its ontology (what is the uncanny?). Most of the evidence of his study was built on personal observations and professional case studies. Jentsch describes "the uncanny" as the term used to refer to an individual not feeling "at ease" when confronted with something that seems or is foreign (Jentsch 1906). He often refers to the uncanny as directly linked to intelligence, considering his different test subjects from superstitious, children, women and dreamers. His supporting evidence was

considered questionable and that his conclusion related to intelligence was not supported by Sigmund Freud who in return wrote an essay on the uncanny (1919).

Starting his investigation from his Jentsch's observations on wax figures and automatic toys, Freud argued that the uncanny effect comes from the human urge to create copies of themselves as a way to cheat death (Freud 1955). Freud illustrates his argument by referring to the Egyptians who developed the art of creating images of the dead and the standard religious notion of the "immortal soul" as one of aspect of the doubling technique to cheat death. The problem Freud pinpointed is when the "double" changes "its aspect. From having been an assurance of immortality it becomes the uncanny harbinger of death" (Freud, 1955, p. 9). Therefore, Freud argues that when humans are exposed to an object that stimulates the feeling of uncanny, they are experiencing their repressed fear of death appearing before them. This process of repression is natural since it is crucial for humans to understand their mortality but this mechanism fails when dealing with an uncanny object.

Just as Jentsch's argument was questionable, Freud admits that he had not experienced the feeling of uncanny often enough, making his argument questionable as he also was not able to fully provide a definitive explanation of the phenomenon. Despite the lack of evidence in both essays, the notions of the uncanny reappeared in Masahiro Mori's "Uncanny Valley". He drew on Ernst Jentsch who argued that the more complex a mechanism is, the easier the uncanny effect can occur and he also drew from Freud's notion of "doubles" and death.

Mori suggested that a robot would appear more attractive the more it resembles humans, until a certain point where its realism will evoke repulsion from its viewers (Mori 1970). Even though Mori applied his notion to robots, the concept overlaps with 3D realistic characters. He illustrated his argument with a graph (Fig. 3.1) that shows the correlation between the human likeness and robot's level of realism. The curve shows an increase in likeness that will suddenly

drop into a valley shape which represents the occurrence of an uncanny feeling and rejection of the presented object.

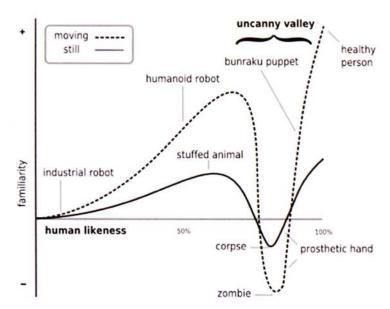


Fig. 3.1 Mori's Graph presenting the Uncanny Valley. Source: Mori. M. 1970. "Bukimi no tani (the uncanny valley)". Energy 7, 4. p 34

But there still is not much tangible evidence of the existence or detailed definition of what the uncanny is. In quest for an answer, an experiment on monkeys was conducted to study the phenomenon from an evolutionary point of view. The experiment featured the study of behavior of monkeys after being presented with three different visuals once animated and another time as still pictures. The three visuals were distributed between real, synthetic unrealistic and synthetic realistic heads of monkeys. The results showed that the monkeys preferred the real and synthetic unrealistic visuals but rejected the synthetic realistic ones. It is also noteworthy to state that their reaction was more exaggerated when presented with animated visuals than when presented with still pictures (Steckenfinger and Ghazanfar 2009). The results still did not offer any definitive explanation of the uncanny phenomenon, but since they showed that monkeys also experience that effect then one could conclude that it exists on an evolutionary biological level as well as psychological.

In conclusion, an eerie feeling emerges when a human is confronted by an uncanny object,

and this phenomenon has become increasingly popular as it appeared and effected many animated films that seem to have fallen into Mori's Uncanny Valley and consequently failed in the box office. These movies include: *Final Fantasy: The Spirits Within* (Monnet 2004), *Beowulf* (Geller 2008), and to a lesser extent *Tintin* (Rose 2011)⁴.

3.2 Bridging the Uncanny Valley

Due to the increasing demand on realism in animated films, many theorists and animation experts have worked on trying to find solutions to avoid or surpass the Uncanny Valley (Christophers 2011). Mori (1970) already suggested that designers should design robots based on the first peak of the curve in his graph rather than the second. This means that designing a robot that has human characteristics but does not look like a real human has a much lower risk in falling in the Uncanny Valley. He gives the example of using glasses to hide the uncanny effect that could emerge by looking at the eyes of a realistic robot or the using different material to create the limbs, allowing the viewer to see the wooden texture and color of a prosthetic hand without finger prints that would appear appealing and without a sense of uncanny to him. In the animation industry, this can be seen with abstracted or anthropomorphic characters seen in 3D animation. Animators and character artists argue that the more abstracted the characters, the better the empathy that will occur between character and audience (Withrow 2009, pp. 18-19). In addition, designers seek to create a balance between the realism of the environment, the characters and their animation. The example stated in the introduction are accurate to explain these approaches. The characters in Finding Nemo were designed to be anthropomorphic, through the addition of flexible lips and the lumps above the eyes to depict eye brows, in the quest of giving fish human characteristics (Price 2008). Furthermore, the ocean in the film was originally rendered to be photorealistic but was

⁴ Others also include: Polar express, A Christmas Carol, among others. However, due to a lack of space only the first three will be analyzed in this thesis.

later reduced to create a balance in realism as it would not be believable to present talking fish in a photorealistic environment. The same process occurred in the film *Shrek* where the character Fiona originally appeared too realistic and was later reduced to fit the style of the film (Misselhorn 2009, p 347).

This leads to a solution that moves in a different direction. Studies show that humans are already predisposed to be attracted to abstractions, as the latter are more exaggerated the better the object will appear (Wages et al. 2004). Therefore, characters that are reduced to their simplest shape can express the essence of the emotion being communicated to the audience (Withrow 2009, pp. 18-19). Then it is through these facial expression that empathy can be triggered almost immediately (Misselhorn 2009, p351). This explains why the audience can experience the same emotions the characters of the films are feeling. But as history shows, the abstractions discussed form one type and empathy can be achieved through different means. In his book "Abstraction and Empathy", Worringer (1997) explains that there is another type of abstraction found in realistically painted art of the renaissance period. He argued that the curve is the abstract shape of life that turns inorganic materials into an animated entity. That notion was also discussed by Aby Warburg who argued that excessive use of curves used in illustrating drapery and the clouds was the main element that caused the paintings to look as if they are animated (Papapetros 2012, pp. 34-35). The curve (hidden or merged with the elements of the painting) is the abstract shape of life that allowed viewers to empathize with paintings of that era. This means that realistically animated films could feature another type of abstraction that is not as obvious as the anthropomorphic and reduced style, which could allow the establishment of bridges that could connect the audience with the visual.5

Coming back to realistic animations, it was mentioned in Chapter Two that there is a

⁵ This line of research will not be pursued here because it will take us in a different direction. This thesis is focusing on finding solutions to the Uncanny Valley in realistic animations.

debate on whether motion capture animation follows the concept of bringing objects to life since the results looked mechanical and unnatural. This phenomenon can be seen in the early realistically animated films such as "Final Fantasy: the Spirits Within", where the characters were described as moving like lifeless puppets (Monnet 2004). Animation Scholar Maureen Furniss explains that the character's facial expression is the most crucial element of the communication process that occurs between the audience and what is presented (Christophers 2011). An unnatural looking movement of the limbs can cause uncanny effects. An uncanny facial expression can result in a greater negative feeling from the audience than that of an uncanny limb movement. Hence, most importantly it is the facial expressions and the eyes of the character that draws the attention of the viewer the most. An unnatural movement of these two elements will definitely cause an eerie sensation (Christophers 2011). Fortunately, this issue has been addressed and a new motion capture technology was developed that was also able to provide a more accurate animation of the eyes and facial expressions (Geller 2008).

This technology kept developing reaching the potential for creating impressive results in film such as Avatar (2009) and the Emily project by Image Metrics (Christophers 2011). The results of Image Metrics presented a hyper-realistic digital copy of "Emily" that explained the technique used, but it is only at the end of the video that it is revealed that the talking Emily is only a digital replica and then replaced with the real Emily in the last few second of the video (Fig. 3.2).



Fig. 3.2 The Emily Project by Image Metrics. The pictures presents scenes from an interview with Emily. The last frame (lower right) reveals the digital nature of Emily.

Source: http://technabob.co m/blog/2008/08/2 0/image-metricsemily-facialanimation-blowsmy-mind/

The current best achieved results in movies nowadays are based on the combination of technology and conventional animation techniques (such as the Gollum character from *The Lord of the Rings Trilogy*). Even though technology has evolved significantly, there are still issues that should be considered. As mentioned the technology used nowadays for realistic animation, tend to focus more on the concept of copying reality. Motion capture records the movement of the

actor and then applies it on the digital model, even though there is still some input from animators to improve the result by combining various techniques (Christophers 2011). But there's still the issue of realism to be considered. There must be a harmonious collaboration between the animation elements in order to achieve believability (Withrow 2009). Just as the UPA was able to create, through design, a new style of animation separate from the dominant Disney style at that time (Webster 2005); it is possible to formulate a set of design principles to follow when creating a realism oriented animation.

First, the definition of realism, in animation, is usually relative to the world itself in which the animation is presented (Wages et al. 2004). As an example of this definition, games tend to present a realistically modeled world that features fantastical creatures that do not exist in the world we live in. One of the reasons of the uncanny occurrence that Freud (1955) mentioned in his essay involves the nullification of the distinction between reality and imaginary. This phenomenon occurs when elements that are regarded as imaginary appear in the real world; or "when a symbol takes over the full functions and significance of the thing it symbolizes." One of the examples given is the story by E.T.A. Hoffman titled "Sandman" (Freud 1955, p. 5). It depicts the story of a supposedly fictional character that preys on children in the real world by throwing sand in their eyes, ripping them out and then flying back to the moon to feed them to its children. But Freud continues to argue on this matter stating that fairy tales we are familiar with produce no uncanny feelings whatsoever due to their rich content of instantaneous wish-fulfillments.

According to Freud the whole concept of the imaginary world is that its existence depends on the fact that it is not submitted to the reality-testing faculty of a human's brain, meaning that any element that is not uncanny in fiction could become uncanny in real life but the risk of creating uncanny effects in fiction are also high.⁶ It is up to the story-teller, as Freud (1955)

⁶ One of the loophole Christophers mentions in her thesis is the fact that Mori's notion focuses on the uncanny feeling produced when the viewer is not aware of the presented realistic robot (or character) is fake (2011, p. 46).

explained, to create a world that is either completely imaginative (fairy tales for examples) whose elements produce no uncanny effect since the listeners or reader leave their reality behind and become fully emerged with the content; or if the world is less imaginative and resembles real life more than the previous case, then the story-teller has to merge spiritual entities or daemonic influences as long as they remain confined within the metaphors and poetry of their own world where any uncanny phenomenon will fail to have any effect on their readers or listeners. One of the examples given by Freud (1955) was Dante's *Inferno*, an epic poem that describes the different domains of hell.

3.3 Conclusion

Therefore, if animation should present any realistic content, it should feature elements that follow Freud's example of the second world option (less imaginative and resembles our world). But creating a secondary world that resembles our reality that allows its viewers to merge completely into its content is no easy task. In his essay "On Fairy-Stories", Tolkien (1969) devised a method, drawn from myths and language, to create a secondary world (with all its elements) that resembles our primary one and that could not only fall into the reader's primary belief, but also trigger a positive and joyous feeling. Since this thesis focuses on characters, it is important to understand how characters can communicate. Joseph Campbell provides the answer to this issue with his notions on myths and especially the characters presented in myths.

Chapter 4

The Elvish Remedy: Tolkien, Campbell & Myth

As mentioned in the previous chapter, Freud attributed the absence of any uncanny elements in fairy tales to the depths of its imaginary world and its capacity to make people leave reality behind (suspend the reality test) and fully immerse themselves in this imaginary world. It appears that elements, whose existence in the real world is impossible, will not produce any uncanny effects if their being is justified in the setting that they appear in. This is opposed to the kind of fiction that features sufficient similarities to the real world that it generates an uncanny feeling in the observer because of the reality test. Paradoxically, according to Freud, a fantasy world that involves the presence of demonic characters and other creatures seems, despite its resemblance to reality, to be believable and produce no eerie effects (Freud 1955). Freud's observations provide us with a springboard to explore the optimal ingredients for a realistically animated film and the role of the characters found within but this is as far as we can go with Freud.

It is J. R. R. Tolkien, author of *The Lord of The Rings*, and the mythologist Joseph Campbell who can provide us with the missing elements of the design theoretical framework we are looking for. Tolkien wrote an essay providing detailed information on the process used to create a believable fantasy world while Campbell explored at length the structure of myths and the role of character archetypes in them. In this chapter I shall develop the theoretical framework for the following chapters.

4.1 J.R.R. Tolkien

Tolkien was a poet, writer and philologist best known for "The Hobbit," "The Lord of the Rings" and "The Silmarillion". He worked as a professor in Oxford and was part of a literary discussion group,

The Inklings, along with friend C.S. Lewis. *The Lord of the rings* was first published in 1954 and then was realized in a very successful movie adaptation by Peter Jackson in 2001 (release year of the "Fellowship of the Ring"), who is currently working on the third part of "The Hobbit" movie adaptation.

4.1.1 Tolkien on the Origins of Myths

In a response to a letter sent by a man to Tolkien in which he criticized myths as "lies" and its process of creation as "breathing a lie through silver" Tolkien has this to say:

Dear Sir,

Although now long estranged, Man is not wholly lost nor wholly changed. Dis-graced he may be, yet is not de-throned, and keeps the rags of lordship once he owned: Man, Subcreator, the refracted Light through whom is splintered from a single White to many hues, and endlessly combined in living shapes that move from mind to mind. Though all the crannies of the world we filled with Elves and Goblins, though we dared to build Gods and their houses out of dark and light, and sowed the seed of dragons - 'twas our right (used or misused). That right has not decayed: we make still by the law in which we're made. (Tolkien 1969 pp 53-55)

He went on to explain that fantasy is part of human nature, a tool to be used in the recognition and interpretation of reality. The most efficient myths are built upon a more logical base in the sense that they are a clearer and more creative representation of what could not be understood except in the form of metaphor. Did not humans imagine Gods with specific characteristics and worshiped them?

4.1.2 Tolkien on Fairy Stories

As a philologist, Tolkien drew inspiration from myths that led him to pinpoint a specific genre of narratives, he dubbed as "Fairy Stories", which became the focal point of an essay "One Fairy-Stories" (Tolkien, 1969). It is easy to get confused with other similar genres like "Fairy Tales." Unlike the latter, Tolkien defined "Fairy Stories" as narrative structure that revolve around the adventure of "man in the realm of faerie" in which he interacts with extraordinary beings; a "Fairy Tale" on the other hand tells the story of fairies and other supernatural beings (Tolkien 1969 pp 9-10). This phenomenon of interaction between humans and the inhabitants of faerie comes from the human desire to communicate with living beings. To explain his notion of Fairy Stories, Tolkien compares them with other types of fantasy literature such as "Beast Fables," which he is quick to explain could not be considered as Fairy Stories since they revolve around animals or beasts as main characters and therefore contradict the notion of human interaction with the faerie world, which is essential for his definition of a Fairy Story (Tolkien 1969 pp 14-15). Furthermore, any story that takes "dreams" as the focal point of the imagined world is also not a part his definition of a Fairy Story (Tolkien 1969 p 13).

Creating imaginative worlds is possible due to the human mind's ability for generalization and abstraction, an effective skill of perception and breaking down an object and modifying its

visual formula. This skill is directly linked to language, more specifically the usage of adjectives which Tolkien (1969 pp 22-23) described as the most potent of tools in the faerie world. To illustrate this, Tolkien gave the example of the human ability to perceive "Green Grass" and differentiate it from other objects, but also being able to perceive that it is "Green" as well as being "Grass". This allows any human to take the adjective and place in front of any noun to create something new, i.e. Green Men, Blue Sun, etc...There is a rich amount of examples, outside Tolkien's essay, that can be used to illustrate this point. In an Etruscan tomb, located near the Calvario area of the Monterozzi necropolis, monstrous humanoid creatures with blue skin dubbed as "The Blue Demons" were depicted on its walls. The color blue, the color of rotten flesh, was used to color the skin of these demonic creatures of the underworld, leading to one of the oldest surviving images of hell (Spivey 2005).

4.1.3 The Elvish Craft

In order to successfully create a good Fairy Story the author must succeed in what Tolkien calls 'Sub-Creation.' Sub-Creation is the key to understanding what constitutes those elements of a story that make it so believable that the reader plunges into what Tolkien calls 'primary belief.' This of course aims to go beyond Samuel Taylor Coleridge's "Suspension of Disbelief" and use this specific structure of mythology to intensify belief (Tolkien 1969 p 37). Sub-Creation is therefore the process with which a secondary world is shaped that would fall in primary belief. But creating a new object (a green sun for example) requires more effort or a special tool to make it seem credible; Tolkien calls it an "Elvish Craft" (Tolkien 1969 p. 49); the highest form of magic that a "Fairy Story" uses for specific purposes whether they are related to satire, morality,

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⁷ Coleridge had explained the reader's belief in fantasy worlds as a "suspension of disbelief." However, as we see here Tolkien counters this view by insisting on an intensification of belief rather than its suspension.

adventure or fantasy (Tolkien, 1969, p 10). This usage of the term "magic" in Tolkien's essay best describes the set of tools or skills that can be used to create a secondary world, existing separately than ours, with its own rules, but which would fall into the reader's primary belief.

A good Sub-Creation must follow and achieve four functions: Fantasy, Recovery, Escape and Consolation. Starting with the first, Tolkien explains that "Fantasy" found in "Fairy Stories" is of the highest form. The Sub-Creator uses fantasy not only to imagine a world similar to the real one (stressing on not copying reality), but creating it with its own "inner consistency of reality" (Tolkien 1969 p 46). This allows the creation of different foreign or new elements and creatures whose existence in that particular world will seem plausible. The usage of "Fantasy" with the right metaphors would allow whoever treads (reader, viewer) in this fantastical world (that seems to resemble reality) to become aware of the existence of its foreign elements. This process allows the audience to "Recover" and rediscover familiar elements from a different or foreign perspective. By experiencing the process of "Recovery", the reader or viewer will move away or "Escape" from the habits or psychological limitation of the familiar world, leading to the reinterpretation of old experiences and witness new ones. The final point the process of Sub-Creation should achieve is "Consolation". This final function of Sub-Creation is to allow the "Fairy Story" to incite a feeling of joy in its spectators through the presentation of struggle and hardship that ends with a resolution (a happy ending).

It is interesting to note that Freud noted the absence of uncanny elements in the world created following Tolkien's process of Sub-Creation. Tolkien would add that it produces a positive feeling of joy instead. Both Freud and Tolkien seem to agree that good fantasy is the creation of a world that is similar to reality but guided by different norms and present a different perspective of elements presented in a more poetic or metaphorical approach. However, while Freud alludes to this Tolkien explains precisely how this alternative world is created.

Along with the examples given by Tolkien of this application (King Arthur, Sir Gawain and the Green Knight and even the influence of the bible on the matter), he was able to create his own version of a "Fairy Story" mythology, the highly acclaimed *The Hobbit* and the *Lord of the Rings* Trilogy. In this next section, the approach Tolkien used to create the famous races of Elves that he used in his novels will be discussed relying heavily on historical and cultural background in which Tolkien was an authority on as an example of the extent of details he provided for his characters and their world.

4.1.4 Depths of Character: The Elves

As an Anglo-Saxon philologist, Tolkien was asked to work at many Celtic archeological sites which enriched his knowledge of Celtic mythology and languages that eventually led to the creation of two different races of Elves that played a major role in his novels (Fimi 2006). There is a striking resemblance between the Celtic "Tuatha De & Danann", a race of semi-divine creatures who invaded Ireland where they learned magic and druidry, and the high elves that rebelled against the Valtar (The Gods in Tolkien's Fairy Story) and reached Middle Earth. What characterizes Tolkien's characters is the attention to detail that he provides for each and every one of them.

From a character design point of view, both races are neither defined as humans nor demons and share a similar description of physical features: "large, strong, and beautiful beings that mingled with mortals and yet remained superior to them." As well as sharing similar talents such as: craftsmanship, military strength and combat skills, poetry and magic. Furthermore, Tolkien created another race of Elves he dubbed as the "Grey Elves". The latter differ from the "High Elves" as they have no knowledge of magic nor possess the same crafting skills since they have never been to Valimor (the immortal lands of the gods); but consider Middle Earth as the rightful place for the High Elves, another feature that is similar to the "Tuatha De & Danann" race

who are considered as the rightful heirs of Ireland. Recalling what we said earlier about character design and development, Tolkien is basically creating a background story for these characters while defining their characteristics, skills, height and aesthetics. But Sub-Creation goes beyond just creating a background story for one character creating the very conditions that make him and his world believable or real. Tolkien created a whole culture of living beings with their own traditions, mythology, history and language. Based on the old Welsh language, for example, Tolkien was able to create a similar language, to suit those who speak it since they share common elements as the races from Celtic myths, that he called "Sindarin," that became the official Elvish language in Middle Earth.

4.1.5 Sub-Creation and Realism

What emerges from the previous example about the remarkable details and depths of Tolkien's characterization of the Elves brings to the fore a very important question. Tolkien's notions of Sub-creation, primary and secondary belief, and fantasy bring to light an issue that is at the heart of animation theory: realism. We alluded to the issue in Chapter One when discussing realism in animation theory and Chapter Two when discussing Freud but now we are in a position to tackle it from a different angle indeed. What is realism? Looking at the term from the conventional sense, if reality is all that is related to what can be perceived with the senses, then this process to Tolkien is one that enslaves the human mind in a world of observed facts. (1969, p 47) It is through "Fantasy" that the human mind is liberated from the tyranny of "observed facts" and is given the freedom to refract what is perceived into different hues. It is by mastering this process within the art of Sub-Creation, that the mind can create a secondary world that contains an "inner consistency of reality" and not an abandonment of reason (Tolkien 1969, pp 53-55). In order to shed new light on the importance of this argument in the domain of animation, it is important to

clarify what we discussed previously concerning the meaning of the term "animation". It is not only an act of "giving life" to an object, but it is an act of "giving life" or a "soul" to a design and not by copying reality (Wells 1998, p 10). This of course has led animators and theorists to explore the notion of "realism" in animation.

Wages (2004) and Christophers (2011 p 26) share similar views on the definition of realism in animation as being "relative to the frame of mind placed on the type of film." What this means is that reality is relative to the content of the animation environment which, if applied within the art of Sub-Creation can lead to the creation of a secondary world with its own laws, seemingly objective and untainted by its Sub-Creator's psychological presence. This was in response to criticism that both Gollum (*LOR*) and Navi (*Avatar*) were not 'real' but 'realistic.' The difference being that though both are photorealistic creatures, they do not and cannot exist in a real world. Given that we have redefined realism in animation as being relative to the manner with which the world is *presented*, therefore the usage of mythical creatures and anthropomorphic characters does not make it any less real. The measure of an animation's realism is not whether the creatures actually exist in the real world nor the superb technical skill in animating it but rather the degree of believability of the movie which puts the observer in a world as real as any other.

If Tolkien provides us with the theoretical framework for how to create a world as real and believable as reality, it is Joseph Campbell that provides us with our next piece of the puzzle.

4.2 Joseph Campbell

Joseph Campbell was a mythologist, best known for his "The Hero with a Thousand Faces", "The Power of Myth," and the "Primitive Mythology: The Masks of God."

4.2.1 The Monomyth

Campbell believed that myths are directly linked to human experience. The following quote is illustrative:

Living myths are not mistaken notions, and they do not spring from books. They are not to be judged as true or false but as effective or ineffective, maturative or pathogenic. They are rather like enzymes, products of the body in which they work; or in homogeneous social groups, products of a body social. They are not invented but occur, and are recognized by seers, and poets, to be then cultivated and employed as catalysts of spiritual (i.e., psychological) well-being. And so, finally, neither a stale and overdue nor a contrived, plastic mythology will serve; neither priest nor sociologist takes the place of the poet-seer – which, however, is what we all are in our dreams, though when we wake again we may render only prose. (Campbell 2002 p. xiv)

As an expert in comparative mythology, Campbell was able to reveal a typical sequence of events that characters in different myths undertake to communicate a certain truth. This archetypal sequence was dubbed as the Monomyth (Campbell, 2004). Like any narrative structure, the

Monomyth is driven by characters working together to create a fluid and convincing narrative that communicates to its audience. The protagonist or the hero is the main driving force of the Monomyth and is what is worth writing about as Joseph Campbell (1988) would explain. In a series of interviews with Bill Moyers, compiled under the title "The Power of Myth", Campbell (1988) defined the Hero as "someone who has given his or her life to something bigger than oneself." The Hero's deeds can appear in two forms: the physical deed where the Hero achieves brave acts in battle and/or saves lives; and the spiritual deeds which teaches the Hero a spiritual lesson and he comes back to pass it on. This act of going forth to battle or to discoveries, an act of going and returning, can be seen in all myths.

It can be seen in the example given earlier concerning Tolkien's High Elves who traveled back and forth from the immortal lands and then coming back to Middle Earth with greater knowledge than the Grey Elves. Another example to illustrate this cycle involves one of the trials that Frodo and his company faced with the Barrow-Wights. After defining the conflict between good and evil in Middle Earth, Tolkien focused on Frodo's quest to destroy the ring as the main element of his narrative. The focal point of that particular chapter in the book is the encounter of Frodo and his company with the Barrow-Wights. In Tolkien's middle earth, the purest forms of evil (Sauron, the Ring Wraiths and the Barrow-Wights) are presented as spirits attacking their victims' consciousness rendering them to their will (Callahan 19972). In Western Myths when greed thrives by hoarding gold, a curse is cast upon the collector. This curse usually appears as the appearance of a dragon (a symbol of evil) as it occurred in the Myth of Beowulf. Much like the dragon from Beowulf's Myth, the Barrow-Wights guard a burried treasure of selfish kings and were awakened with the rise of evil. While his companions were attracted by the gold, Frodo resisted the temptations and fought to save his friends. As his first quest outside the Shire, Tolkien could not allow Frodo to vanquish this evil alone, the logic would not compute. He instead

created a character specific for this event (Helper). Through magic, Frodo's selfless act summoned Tom Bombadil who possessed the power to vanquish the Barrow-Wights (Callahan 1972). Even though this event does not fit in the narrative of the main plot, it does provide additional info on Frodo's character as one resistant to temptations, which explains his resistance to the Ring's evil power. It seems that by following the Monomyth, the characteristics of a hero will be revealed to himself and the audience as well. The creation of the character was established through thought and design in order to serve the story in the most effective way possible. A good Fairy Story fits the Monomyth perfectly.

On a deeper psychological aspect, the hero's journey represents every person's ordeal and experiences in life. It is the struggle of the hero to achieve his goal is what makes this archetype a powerful one since it not only creates sympathy between humans and the hero but also empathy. The reason behind the success of many characters (even outside mythology), Babies or Mickey Mouse for example, is due to their imperfections and struggles. Humans gravitate to imperfections as they are themselves imperfect and struggling to achieve certain goals and the Hero's journey in myths present those experiences from a more poetic perspective (Campbell, 1988). This was already seen in Tolkien's Sub-Creation; the more elaborate and harsh the struggle is the better the resolution and consolation will be at the end.

Since a narrative does not revolve around only one character, there is a list of other archetypal figures that play a crucial role in each of the events found in the Monomyth. The following diagram (Fig. 4.1) presents the cycle of going and return of the hero's Journey or the Monomyth.



Fig. 4.1 The Monomyth or Hero's Journey Source: Campbell J. (2004), *The Hero With a Thousand Faces*, Princeton University Press. p 227

As mentioned earlier, myths present a different perspective on the human's experience of life. It is interesting to note that the cycle not only presents an archetypal sequence of events of myths but also of life itself. The Monomyth will present a series of transformations (psychological or physical depending on the setting) the hero undertakes as he pushes through his adventure. Starting from his familiar world, the hero will find himself leaving his comfort zone, whether by sheer accident or willingly, that will lead him to answer the call to adventure. Certainly, the protagonist does not step into the unknown without any preparation. That's where other archetypal helper characters (in myth, they usually appear as an old wise man) will come in to provide the hero with a special tool, weapon or training. Now that the hero is ready to step into the unknown, he simply needs to pass through the threshold that separates his previous lifestyle and his new one. By doing so, Campbell explains that the hero will emerge from a symbolic womb (belly of the whale for example, see Fig. 4.1) as reborn as the hero with a higher form of consciousness. From there, the hero will confront obstacles or tests while meeting and interacting with other characters (helpers or villains) that will prepare him to face his greatest challenge. The

protagonist does not necessary emerge victorious the first time he goes up against his greatest fear. But when he does, he will receive a certain blessing, power or a treasure and makes his way back to his old familiar world as a new improved being. This of course is a simplified and general version of the Monomyth, some myths go through more than one cycle and have more events depending on the complexity and grandeur of the myth (Campbell, 2004). To illustrate the idea that the cycle presents a metaphorical representation of the human experience, humans tend to pass a very similar sequence of events in their own lives (Campbell, 1988). From the transformation humans undertake in their birth, their education from leaving their old learning environment (High school) and proceeding into a new one (College) and then their return to contribute to society, this cycle of going into the unknown and returning in a more enlightened state is a representation of life itself. Based on this, myths communicate to their audience who can identify and empathize with the hero. As Campbell put it: "For we have not even to risk the adventure alone, for the heroes of all time have gone before us." (2004, p. 23)

4.3 The Elvish Remedy: The Fairy Story as a Monomyth8 & Character Design

The Elvish Remedy I am proposing to help resolve the issues arising from the Uncanny Valley has to do with a character design and development process in animation movies that is cognizant of the following theoretical framework:

- Tolkien's process to achieve Sub-Creation and placing the Faerie world in primary belief. This forms the

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⁸ It is important to address a possible criticism here, which has to do with Tolkien's rejection of any approach that dealt with generalities. Had he lived to know Campbell's work, some scholars suggest that he might have rejected it because of his insistence on the details of stories as opposed to generalized or synoptic forms (Rateliff, 2009). I strongly disagree with Rateliff's statement on the simple fact that Tolkien, the mythologist who had studied various mythological traditions, could not and did not reject the comparative study of mythology but what he objected to was the *reduction* of cultural myths to a universal archetype.

first step in the creation of a highly believable secondary world free of any obvious subjective presence of its Sub-Creator and would seem to function with its own beings and rules. By doing so, the designer must abide by the fact that this form of narrative, or Fairy-Story, must revolve around the struggles of a mortal human in the created realm and his interaction with other beings, whether mythical or human.

- The functions of Fairy Stories: fantasy, recovery, escape and consolation. Now that the type of narrative has been defined as a Fairy-Story, it is now up to these function to shape the world. It is through Fantasy that the Sub-Creator fills his creation with as much details as possible justifying the presence of each character, whether human or mythological, through his own original defined culture. The designer must keep in mind that this secondary world must not be a copy but representation of a similar truth presented through metaphor and poetic aesthetics, in order to allow the audience to escape and recover by identifying with the elements as familiar but at the same time original in their own way. Finally, as a Fairy-Story it is crucial to emphasize on the adventures and struggles of man in the Faerie World but not turning the narrative into a tragedy by allowing retribution or resolution and consolation for a happy ending. The greater the problematic the better the consolation will be.
- The Monomyth as a narrative basis. This model serves well to apply the sequence of events occurring in a Fairy-Story since it is type of myth and the Monomyth is a typical representation of the adventures, failures and victories of a Hero (in this case, a mortal human). The manner in which the world is presented falls back to the previously discussed points.
- The character archetypes presented, especially the Hero, and their function in the narrative. As mentioned in the section related to Tolkien, the main character must interact with the dwellers of the Faerie world. This aspect of the Monomyth allows the designer to consider each character that should play a role in making the narrative more convincing.

- The symbolism of characters to maintain a certain form of abstraction. Since the hero is a symbolic representation of each member of the audience in his/her own life, it is crucial that each character presented in the narrative to reflect the symbolic meaning it is trying to communicate.

The representation of reality through this theoretical framework can be linked directly to animation since it revolves around using a high form of imagination to establish a solid idea that will help shape the elements that a movie depends on. This idea is usually established at the early stages of production in a form of a script as a basis for design and further development (Webster 2005, pp. 135-136). Further confirmation of the Elvish Remedy is provided by Pixar's John Lasseter via Webster who provided equations that present the key of a film's success being the combination between a "Good idea" and "Good animation." However, he was more favor of the "Idea"(2005, p 110). The term "Good Idea" can easily be replaced with "Elvish Remedy" and the equations are presented as:

Elvish Remedy + Bad animation = Good Film

 $Bad\ idea + Good\ animation = Bad\ Film$

 $Bad\ idea + Bad\ animation = Stinker$

Elvish Remedy + Good animation = Write your acceptance speech

Through the process of the Elvish Remedy, it is possible to create a secondary world that justifies the existence of any fantastical beings and still falls into the viewer's primary belief with its own internally coherent laws.

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⁹ The script is considered as the core to any animation project since every element revolves around it. It is advised that a script should be flexible enough to change throughout the production process. A rigidly designed script will rid animators the freedom to contribute creatively and force animators to focus on technical issues instead (Webster 2005, pp. 135-136).

4.4 Conclusion

This theoretical framework for character design and development are not meant to be a substitute for new technical skills but rather as an indispensable ingredient of an animation that hopes to achieve empathy and avoid the Uncanny Valley. It is crucial not to allow technology or technical skills to drive the animation process, they are but one ingredient. It is by combining the potential of today's technology with the remaining elements of animation, under a unified design applied through the spectrum of the Elvish Remedy that will lead to creating a virtual reality that would seem believable and trigger a positive outcome from its viewers. The fact that conventional animation has been successful to varying degrees is because it has achieved one or several of the outlined ingredients of the Elvish Remedy listed above. In next two chapters, several case studies will be analyzed based on the theoretical framework of the Elvish Remedy.

Chapter 5

Remedied Films

This chapter is reserved for the study and analysis of two successful films in the light of the Elvish Remedy: *The Lord of the Rings* and *Star Wars*. Each case study will be introduced then defined based on its cultural background, followed by an application of Elvish Remedy framework, leading to the conclusion. This defines the main structure of the case studies. But certain elements will be discussed, according to certain needs, based on the previously presented principles of character design. It is important to include the visual aspect of the character within their function in the narrative structure, since the combination of these traits are crucial elements in character design. The analysis should reveal reason behind the success of these films, specifically in the messages the characters are trying to communicate to their audiences.

5.1 The Lord of the Rings Trilogy

Even though it has been established that the Monomyth exists in Tolkien's work, but the examples of the two races of Elves and Frodo's encounter with the Barrow-Wights in the previous chapter are not featured in any of the movies. In the first section of this case study, the reasons behind the exclusion and the changes in the narrative structure of certain events will be explained. It should be noted that this analysis is not a comparative study between the visual or written version of the Lord of the Rings. It only aims to show Peter Jackson's commitment to the functions of Fairy Stories and the mythological hero cycle.

5.1.1 Background:

First, it is important to explain Tolkien's views on illustrating the narrative style he defends. Tolkien (1969) showed strong opposition to illustrating the imagined, preferring the written over the visual. According to his essay "On Fairy Stories", the visuals presented in the theatrical pieces he attended failed to live up to his expectations (pp. 50-51). Props and gadget used were convincing enough to illustrate magic or create believable shapes for the mythical creatures presented. This allows the viewer to differentiate between imagined and real and therefore prevent the world to fall in primary belief. Furthermore, it's possible that the visuals did not possess the same potential of the human imagination and would have limited its true capabilities. However, his paper was written in 1939 and technology has significantly evolved since then, allowing us to create imagined worlds and bring them to life with various techniques of animation as this thesis has shown. As proof of this, *The Lord of the Rings* Trilogy was made into three successful and influential movies by Peter Jackson. ¹⁰

Tom Shippey (2003) explains in his article "From Page to Screen" Peter Jackson's approach in order to turn a highly detailed and complex book into a successful movie. It is clear that Tolkien's book was not intended for scriptwriters or for movies and this can be seen in how Peter Jackson modified the narrative structure while keeping true to the original story in order to make the movie more viewer-friendly. Even though it is not mentioned in the article, it is interesting to add that Peter Jackson's approach in building his vision of this movie involved giving the right amount of information while leaving out some minor details of the characters,

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¹⁰ A possible criticism here might be that Tolkien was against illustrations of the imagined, preferring the written to the visuals because visual illustrations provide one possible image whereas the reader's imagination can provide an infinite range of possibilities. The illustrations presented in the theatrical pieces failed to live up to Tolkien's expectations. It is important to bear in mind that the "On Fairy Stories" essay was written in 1939, technology has evolved since then, allowing us to create imagined worlds and bring them to life with various techniques of animation. In the Chapter, The case study on "The Lord of the Rings Trilogy" will provide adequate information on the process Peter Jackson relied on to create the successful movie adaptations of Tolkien's work.

races, cities and history as they were not crucial in the main plot of the films or the narrative structure of visual storytelling. This leaves room for the imagination and curiosity in the viewers who have not read the book to go back and read it. As for those who read it, the movies can be considered as Peter Jackson's imaginative interpretation and vision of Tolkien's work. It could be argued that this trilogy was not fully animated or virtual as it presents real life actors instead of animated ones. But since this film was built upon Tolkien's work it should live up to the standards of 'Sub-Creation.' Therefore this case study will provide an adequate basis for the analysis' structure that could be applied in the following animated films (*Final Fantasy, Beowulf and Tintin*). Finally, since a large amount of detail concerning Tolkien's background and approach was discussed in the previous chapter, no additional information is required to be stated in this section.

5.1.2 Analysis based on the Elvish Remedy:

As a movie adaptation of Tolkien's magnum opus, *The Lord of the Rings Trilogy* is the most fitting example of a movie to conduct an analysis based on Sub-Creation. The film should not only present influence from myths but also from the structure of "Fairy Stories" and their four functions. As a myth, *The Lord of the Rings Trilogy* should also follow the hero cycle while presenting the various character archetypes and their role in the hero's journey.

Starting with Tolkien's process to achieve Sub-Creation and placing the Faerie world in primary belief, this guideline revolves around the representation of the world itself. Peter Jackson was able to use the landscapes of New Zealand to create Middle Earth. By doing so, he was able to present Middle Earth in a very familiar environment or landscapes found in reality while adding an element of the faerie in them. Furthermore and most importantly, the whole trilogy seems to reflect the adventure of man in the faerie world. It is true that Frodo and his kin are not defined as men but hobbits. But their appearance and innocence reflect that of a human child, a feature that defined

and played a major role in portraying one of the main characters of the movie. Since the analysis shows so far that the film follows the structure of a Fairy-Story, it is possible to further explore its functions presented in the film.

Fantasy:

Possessing a deep understanding in cinematography, Jackson was able to re-arrange the narrative structure so it could be done visually (Shippey 2003) with the help of a complex array of CGI, object modeling (using real material) and technology (Christophers 2011). That being stated, Tolkien's argument concerning the representation of magic through props does not fit in the movie since Jackson was able to present elements of the faerie world with impressive aesthetics. An example is the Gollum character we discussed before. Bringing this character to life, required a creative approach to key frame, rotoscoping and motion capture animation that also relied heavily on stage acting (Fig. 5.1). A process that made the performance of the creature Gollum as highly believable, something that was impossible to accomplish visually at Tolkien's time.



Fig. 5.1 Gollum and Andy Serkis Souce: http://scrapbook.theonering.net/scrapbook/author/WETA_Digital/view/7823

Some of the cast of the Lord of the Rings were required to learn Sindarin, the language of the

elves, which was spoken in many scenes of the film. Clothing, ornaments, structures or built environments were also designed to reflect the culture of the concerned city or village. In addition, the reason behind the appearance of some of the character was justified, the creature Gollum and Sauron's shape of the eye for example (Fig. 5.2).



Fig. 5.2 The Eye of Sauron

Source: http://lotr.wikia.com/wiki/Sauron

Since it was mentioned earlier, it is appropriate to explain the reason behind the portrayal of the Hobbits. It is revealed in the film as it was in the novels, that the One Ring of Power acts efficiently in corrupting the minds of those who seek power. Frodo, as a hobbit, had no intention of using the ring for such purposes as it was in their innocent, childish nature not to be drawn to such temptation but instead cherish the simple things in life (Glover 1971). This justifies the reason behind the design of such characters that reflect the innocent characteristics of a human child.

Recovery and Escape:

It is interesting how Jackson started the Trilogy with the prologue that depicts the story of the forging of the rings of power and the battle between the alliance (Men and Elves) against the

armies of Mordor leading to the Ring's survival. The prologue is shown as a narrated event as if it was told as a story, which was later clarified as a piece of history long forgotten and mythologized. Right after the prologue, the recovery process begins as the viewer is presented with landscapes that are familiar from a visual perspective but belonging to the imaginary village of the shire. The whole Trilogy features a combination of fantastical elements followed by very familiar ones. The depiction of the shire, a primitive village inhabited by simple friendly children-resembling creatures that share common traditions of some found in the real world, is followed by the presentation of the ring of power (an object of great evil) and the ring wraiths, characters neither living nor dead dressed as faceless dark knights.

Other examples from the first film (The Fellowship of Ring), involve the Dwarven halls and the Balrog (a Demonic creature) followed by familiar mountain landscapes. The Dark Forest, in the second film (The Two Towers), presented both elements of familiar forest landscapes and the Ents. Furthermore, the Wargs and the Eagles that were presented were instances of animals found in reality but with exaggerated features (size, ferocity, etc..). It is also worthy of noting that none of animal based creatures actually spoke in the film, thereby preventing the Fairy Story from turning into a Beast-Fable. By presenting the elements in this manner, it is possible to allow the viewer to escape from the limitations of the real world and merge with the film. Especially since most of the elements (familiar and unfamiliar) are a metaphorical representation of elements of the real world. The Ring of Power as the initiator of man's lust for power and greed, the depiction of the highest form of evil, the Ring's master, as a spirit that took the shape of a great watchful eye in flames instead of being presented as a physical entity that aims to corrupt the souls of its victims; all are a representation of evil that can be identified in the real world as well.

Consolation:

Due to the complexity of the story that started with a main protagonist with his helpers, then splits into a more elaborate scheme where it is revealed that each character is an initiator of his own adventure and a hero of his own quest, whether it is to destroy the ring, protect its bearer or protect the city of Gondor, all for the sake of reaching the final goal: destroying evil. Starting with the death of Gandalf on the bridge of Khazad Dum, to the death of Boromir and the disbandment of the fellowship in the first film to the reappearance of Gandalf in the second as a mightier being and the quest to save the kidnapped hobbits, this sequence of events puts the viewer in a state of suspense, provides a sense of hope and an awareness that the quest is not entirely impossible (Roos 1969). The peak of the problematic is in the final moments of the film where Frodo reaches Mount Doom and finally, due to his weakness after a long hard struggle, falls prey to the Ring's temptations and decides to keep it, thus failing his friends and leaving them to certain death. This climactic peak of emotion in this final scene was later resolved with a simple and yet effective accidental appearance of Gollum who fights Frodo for the Ring and ends up falling in the fire with the Ring leading to its destruction. This accidental resolution relieves the viewers from any stressful or hopeless state of mind and leaves them with a joyous and hopeful feeling: a process free of any negative uncanny emotions.

The narrative structure reveals a commitment to the *Monomyth as a narrative basis*, where the characters follow specific *archetypal characteristics* in order to interact with other characters and therefore *communicate specific messages to their audience based on their symbolic representation*. The sequence of events in both the books and the films is not a simple straightforward one. Due to its complexity, the roles and the number of characters at play, this case study will take into account the main events of all the three films and only two of the main characters, Frodo and Aragorn, in the process of the analysis.

Call to adventure and traversing the threshold:

Frodo:

The journey begins with Frodo, a hobbit from the shire who always dreamed of following his uncle's footsteps in leaving the shire and go on adventure. After inheriting the ring from his uncle, Frodo discover with Gandalf's help the nature of the ring. Frodo answers the call to adventure once Gandalf instructs him of his objective. Frodo is joined by Samwise Gamgee to help him in his quest and they leave the shire, a step they have never undertaken before.

The initiation of the call to adventure is then reestablished in the council at Rivendell, where Frodo fulfilled his first task and then voluntarily takes up the challenge to carry the burden of the ring to the fires of Mount Doom. He is joined by the fellowship of nine companions each choosing to protect the ring bearer with their lives.

At the end of the Fellowship of the ring, Frodo continues his, after breaking away from his companions, escaping the orcs, and was joined by Samwise Gamgee on his quest. At this stage, Frodo comes to accept that the task was appointed to him alone and therefore sets forth into the unknown to accomplish his task without the help of the fellowship.

Aragorn:

Aragorn starts his adventure as Strider, a ranger who ends up helping Frodo escape the Ring Wraiths and reach the destination of his goal (Rivendel).

At this point, Aragorn's true identity is revealed as the true king of Gondor (the Main city of Men). Aragorn accept the quest to protect Frodo with his life. It is true that he plays the role of a helper or the hero's protector at the formation of the fellowship, but it was also revealed that Aragorn is the only one who is able to reunite the kingdoms of Men, a task he originally refused

and chose exile. But at the end of the end of the first film, Aragorn takes up the task to save Merry and Pippin, with the help of Legolas and Gimli; a step that will lead to him to perform his greatest deeds.

Test and Trials:

Frodo:

During the Trilogy Frodo undertakes many trials to reach his final goal. Starting with his escape from the Nazgul before and after reaching the village of Bree, Surviving the Goblins, the Troll and the Balrog (with the help of his companions) in the Dwarf city and finally his escape from Boromir's grasp and the Uruk-hai in the first film. In the second movie, Frodo (with the help of Sam) overcomes Gollum's ambush attack and eventually uses the creature's unique knowledge to find his way to Mordor and escapes from the clutches of Faramir and his men, all of which occurred while struggling with the ring's attempt to weakens Frodo's will. In the final film, as Frodo becomes weaker due to the Ring's influence, he is presented with Gollum's betrayal who leads him into Sheelob's lair, a giant spider which manages to sting Frodo and puts him in deep sleep. Frodo is then saved by his faithful companion and they work their way through the Mordor to reach Mount Doom where they confront Gollum several times.

Aragorn:

The majority of the first film shows Aragorn's pledge to protect the ring bearer at all costs by fighting off the ring wraiths, the goblins and the troll in the Dwarf city (the mentioned Balrog was defeated by Gandalf) and battling the Uruk-Hai so that Frodo can escape in the Fellowship of the Ring. In the *Two Towers*, Aragorn confronts Eomer and his company while searching for his kidnapped friends and then reunited with Gandalf who leads him to Rohan. Starting from there, Aragorn starts working on helping the king to protect his people, from the warg's attack and then

from Saruman's army at Helm's Deep, as a first sign of his answer to his true calling. In the third film, Aragorn answers his true calling as the King of Gondor and confronts the undead mercenaries in the mountain and then leads them to join the fight at Minas Tirith.

Greater Challenge:

Frodo:

At the end of the third film, Frodo, in a very weak state, reaches the fire of Mount Doom after a long struggle, only to be completely overtaken by the ring's power and decides to keep it as his own. Frodo ends up fighting Gollum for the Ring after getting his finger decapitated. The end result was both characters falling down the edge but only Frodo manages to hold on and manages to get himself lifted up by Samwise.

Aragorn:

After the victory in the white city, Aragorn rallies his forces and his companions to draw away Sauron's attention from Frodo, to buy him time to destroy the Ring. Even though this task would cost their lives, it was a necessary sacrifice that needed to be done. But as Tolkien stressed on consolation in Fairy Stories, Frodo destroys the ring and they all live.

Flight and Return:

After the destruction of the Ring and evil was vanquished, all of the main characters reach their final goal and they all finish their cycle together. Frodo is carried back to Rivendel with Samwise Gamgee by the eagles, where he is reunited with his friends and companions. Aragorn is made King of Gondor and reunited with Arwen.

The Hero	to	rsing	and	reatest Trial d blessings		
	Call	Travers the Thr	Tests Trials	Greates and bles	Flight	Return
Frodo	XXX	XXX	XXX	XXX	XXX	XXX
Aragorn	XXX	XXX	XXX	XXX	XXX	XXX

Table 5.1 Frodo and Aragorn's Monomyth

The "X" represents a phase completed, the "XXX" are marked because the cycle was completed three times.

It is interesting to point out the overlap in Tolkien and Campbell's views when applied on The Lord of the Rings Trilogy. Both describe a sequence of events and symbolic use of characters that communicate certain messages, representing aspect of the real world in a metaphorical and poetic sense.

5.1.3 Overlapping Cycles:

Almost each character plays a role of a helper to another character while at the same time being responsible for his own personal quest. Aragorn was helping Frodo but eventually began his own personal quest that ended with him ruling Gondor. Another example that could be presented is of Gandalf the Grey, who fought the Balrog to save his companions and died after vanquishing his foe, only to return as a higher and more powerful being, Gandalf the White, who was sent back to Middle Earth until his task is done. Even Gollum, who played a helper, a fool and the trickster in the Trilogy, was on a quest himself to claim back the Ring. The archetypal figures in the films can be found acting on so many different levels and in part of the hero cycle that is not discussed in the analysis above. For example, Aragorn's acceptance of his past and the sins of his ancestors was able to atone for Isildur's mistake and take up the crown himself. The act of atonement with the

father figure is a mythological theme that can be found in many myths and communicates a strong message with its viewers (Campbell 1988). The Ring being made of gold had the effect of a curse that poisons and corrupts the mind of its victims, as it caused Gollum to experience a split in personality: the good side that is trying to break away from the curse of the Ring and the evil side that is obsessed with Golden ornament trying to seize control of Smeagol (Gollum's good side). This can be seen in "The Lord of the Rings: The Two Towers", in scene where Gollum is having an argument with his good side (Smeagol). The mastered technique of the mixture of the different approaches used to animate the creature, with the timing of the sequence of events, along with the camera technique, the imperfect and humorous nature of Smeagol has lead this character to become one of the most influential characters of our time (even more influential than the more recent *Avatar* characters) (Webster 2005).

5.2 The Original Star Wars

It is important to start this case study by declaring the intentions behind its selection. The choice of the *Original Star Wars* is by no means related to a personal preference as this study is not a comparative study between the Original Trilogy and the prequels to reveal the missing elements from the latter. The first three films made were a well-known and well-documented direct application of Joseph Campbell's notions of the Monomyth. Directed by George Lucas who, with the help of Campbell, was able to create a new modern myth that eventually became one of the most successful and influential movie trilogies that are still relevant today.

5.2.1 Background:

When he started working on the Star Wars, Lucas aimed to create a myth that would reflect

modern society. The result was the Trilogy that communicated to the older and younger generations. It is debatable that Lucas was not an expert on epic literature but he was knowledgeable in the process of filmmaking. His approach involved merging a plethora of mythological motifs, drawn from different cultures throughout the world, with newer themes to communicate messages that are relevant to contemporary culture (Sammons 1987). Starting from Eastern cultures, Lucas linked elements from Asian cultures to certain aspects of the characters or certain notions in the film. As Joseph Campbell mentioned in the "Power Myth", Ben Kenobi and his process in training Luke is a clear reference to the Japanese sword master (Wetmore 2000). In "Return of the Jedi", the starting scene is based on Dante's Inferno where the poet was lead by the friendly Virgil throughout the different domains of hell to reach Satan. In this case the scenario is slightly modified, C-3PO was lead by the unfriendly Bib Fortuna to the Jabba the Hutt (Sammons 1987). The global plot revolves around the conflict between the Rebellion (the good side) with the Empire (the evil side) using references ranging from Western to Eastern Cultures (Wetmore 2000).

On a more focused perspective, the plot revolves mainly around the journey of two heroes: Luke Skywalker and Han Solo (Gordon 1980). The interesting aspect of this myth is its evolution as the trilogy proceeds, which is in direct correlation with the adventure of the two heroes. The first *Star Wars* (A New Hope) tells the story of a boy (Luke Skywalker) drifting from his home and into his adventure, eventually meeting Han Solo whose adventure develops further especially in the second film, *The Empire Strikes Back* reaching full maturity in the final film (Sammons 1987). In the analysis in the following section of this chapter, after discussing Lucas' myth based on the notions proposed by Tolkien, the main events of the movie will be attributed to the different sections of the Monomyth with a detailed analysis of their mythological references focusing on the Hero's Journey of the two mentioned main characters, Luke Skywalker and Han Solo.

5.2.2 Analysis based on The Elvish Remedy

Starting with the presentation or the world in which the *Star Wars* occur, each movie from the trilogy starts with the statement "Long time ago, in a galaxy far far away..." This statement is a clear declaration of the *Sub-Creation process*. The events in the film occur on different planets and systems all of which represent similar geographical environments to earth. That being said, it is important to point out that the whole film revolves around mortal human characters as they interact with other characters (human or fantasy characters) throughout their adventure, an important aspect of Fairy-Stories. All these elements had a major effect in the remaining *functions* of Fairy-Stories.

Fantasy:

By creating a separate universe driven by a power Lucas defined as the Force, some phenomena were justified as a possible occurrence while being impossible in the real world (the lightsaber is an accurate example that features a limited travelled distance of light, an implausible phenomenon of the real world). Lucas did not only manage to create a world similar to reality but also established the concept of the Force, the power that animates all things. Furthermore, the fact that the Trilogy started with a simpler plot depicting the victory of the Rebellion over the Empire but quickly progresses into the complete opposite in the second film. The second film dealt more with the struggle of the heroes and their problems as a true epic would be structured (Gordon 1980), leading to the final victory of the good side in the final movie.

Recovery and Escape:

The mentioned opening statement of each movie of the trilogy, is a direct reminder to the idea

that myths are a metaphorical representation of the human experience throughout a long forgotten history and not a product of mistaken notions. The whole adventure occurs in a universe that is similar to reality that it presents different elements in a different way. The Japanese sword master presented as the Jedi Knight teaching his apprentice in "A New Hope" is an accurate example of this representation of a familiar element from a different perspective. The Trilogy is teaming with similar examples that could be directly linked to personal everyday life events. The Star Wars possessed such an effective appeal in the representation of its traditional plot in a new way that it affected both older and younger generations, communicating with its audience in a deep psychological level (Gordon 1980). Furthermore, the fact that the problematic presented in the Trilogy evolved from a simple rebel victory in the first to their heavy losses in the second is an effective way to present life itself as it presents wins and losses to whoever is participating. As Bill Moyers mentioned in his interview with Joseph Campbell in "The Power of Myth" that the audience broke into applause when Luke Skywalker managed to destroy the Death Star in the first of the trilogy (Campbell 1988). The fact that the myth presented similar aspects to life in a metaphoric perspective allowed the viewers to connect, escape the usual observation of facts of their daily lives and recover within the world of the myth. This process allowed the establishment of the final function of Fairy-Stories: Consolation.

Consolation:

It is through empathy and the fact that the resolution occurred at the moment with the most emotional tension that the audience had the audience's reaction Bill Moyers described at the end of the first movie. Furthermore, since the second film aimed to increase the problematic, it featured no happy ending except the survival of Luke with his encounter with Darth Vader. The Final film was able to achieve a high level of joy with its resolution and happy ending, therefore providing consolation to its audience after a long sequence of events filled with struggle and

tension.

In order to reveal the narrative structure of the films, the events of the trilogy will be divided based on the sections of the *Monomyth* according to two heroes: Luke Skywalker and Han Solo. Through the Hero cycle, the *archetypal characteristic* of these two characters will be analyzed along with their *symbolic significance*.

Call to adventure and traversing the threshold:

Luke Skywalker:

As mentioned above, the myth of the *Star Wars* evolves with its characters. The first movie of the trilogy revolves around Luke Skywalker symbolizing a "boy". After the "sand people", Luke meets Ben Kenobi, a Jedi Knight, who gives him his father's Lightsaber and suggests that he helps him on his quest to save Princess Leia. Lukes refuses the call to adventure, only to find himself drawn into it again after the death of his family. By accepting their deaths and receiving the "Token" of manhood, this act symbolizes Luke Skywalker's rising up to the task of defeating Darth Vader and the emperor (Gordon 1980). Up to this point in the film, Skywalker was still in the process in entering the threshold of adventure. But it is when he and the Jedi knight enter the tavern in search of a pilot to smuggle them out of Tatooine with the two droids. Campbell (1988) explains the importance of this part in the movie, since it presents the first and obvious hint to the hero that he is no longer in his comfort zone. He entered a place he has no knowledge of, with creatures and beings that completely alien to him and it takes the protection of his mentor to guide him through it.

In the second film, the call to adventure occurs in a different way. As discussed earlier, the second film featured a darker plot focusing on the struggle of its heroes, in this case it deals of the "Adolescence" of the hero (Gordon 1980). Luke symbolically "dies" and is "reborn" to continue

his training with Yoda so he can become a Jedi, as he finds himself in a swamp filled and strange planet containing tasks unlike any he has encountered before.

Han Solo:

Han Solo first appears in the tavern Luke and Ben Kenobi entered searching for a pilot. Han takes up the task to help them. He would seem as just a helper character, but as the plot progresses it is revealed that he is the hero of his own adventure that ends up merging with the rebellion, which he will join in their fight against the Empire. Campbell (1988) describes Han Solo as someone who thinks himself has a materialist but is in fact a compassionate man who sacrifices a lot in the aid of others, a quality revealed to him through the adventure.

In the second film, Solo finds himself helping the princess as he helps her escape the Empire and keeps her safe. And finally becoming the general of the rebellion in their quest on the planet Endor.

Tests and Trials:

Luke Skywalker

The first film is a more direct application of the Monomyth with a simpler plot. Despite that, the trials were filled with mythological motifs. Luke's main trial in this film was to save princess leia, witness the death of his mentor and escape the Empire.

But in the sequel, after his second initiation, Luke struggles with his identity as he is shown in an upside down positions in many of his trials (Gordon 1980). First, in the ice cave where he was hung from the legs. Second, during Yoda's training where he was told to balance himself using his hands while levitating objects with the Force. Finally, in the end of the "Empire Strikes Back" after having his hand cut off Luke falls and finds himself hanging upside down, hanging

from an antenna. This is all symbolic of the struggle of an adolescent as he breaks away from his parents. This can be seen in the third "Upside down" scene where Luke, being in danger, calls for Leia (even portrayed as his sister) who represents his mother figure and Ben Kenobi who represented his father figure. Another of Luke's trials was the entering of the dark cave, Yoda instructs Luke that the cave is strong with the dark side of the force and that he will not need his weapons. Luke asks about the content of the cave and yoda replies with "only what you take with you" (Gordon 1980, p 314). Lukes ignores this advice and ends up battling and cutting off the head of Darth Vader who turns out to be Luke himself. In this scene Luke battles himself, the Darth Vader in him since he was still unsure of his identity and destiny. In Jungian terms, Darth Vader is Luke's "Shadow", his opposite whom Luke will become if he gives in to temptation and joins the dark side of the Force.

In the final Film, Luke appears in his mature form and goes to save Solo from Jabba the Hutt. A theme found in Greek mythology as well as the mentioned Dante's epic in the beginning of this chapter. The theme involves the hero saving or bringing back a close friend from the land of the dead. As explained in the beginning of the chapter, Tatooine represents hell and Jabba is its Satan. Luke enters the realm and saves his comrades just as Theseus helped Pirithous to reach Persephone, or Orpheus saving his wife Eurydice. Thus repaying Solo for saving his life previously just as Hercules repays his debt with Admetus (Sammons 1987). After saving Solo, the hero joins the rebellion again on Endor, which finally will lead him to face Darth Vader and Emperor.

Han Solo

In the first film, Solo brings the Western theme of the wild west into the Myth. He appears as the

character who thinks of himself and considers his needs before others (Wetmore 2000). But this view quickly changes as the movie progresses as he postpones paying his debt to Jabba the Hutt and joins the rebellion with his new found friends.

In the second film, Solo's role becomes more elaborate. He is portrayed as Luke's brother figure who constantly seems to carry out self-sacrificing deeds to save Luke after the rebellion lost contact with him in the snow. Furthermore, Han Solo takes up the task of protecting the Princess after Luke leaves for Dagoba and the Empire attacks their base, winning Leia's heart at the same time.

In the final film, Solo's main mission is to reach the Empire outpost to destroy it and therefore lowering the shields of the Death Star. Along this mission, Solo carried the mission as general, forming alliance with the Ewoks in order to fight the Empire.

Greatest Challenge:

Luke Skywalker

In the first film, Luke's greatest challenge was destroying the Death Star while being one of the few pilots alive, outnumbered by the Empire. But this deed is simple in comparison of the more elaborate scheme of the following films.

In the second film, since its plot narrates the struggles of its heroes the "adolescent" form of Luke faces Darth Vader in the end in a duel which ends with Luke's loss of his weapon and his right arm. As explained earlier, when Kenobi presented Luke with his father's lightsaber, the weapon was a symbol of manhood. Luke, having lost his manhood and doubting his identity, discovers that Darth Vader was his real father. This being stated, it is clear that Luke was fighting to kill his father all along, a conscious link between the resemblance of the term "Death Father"

and "Darth Vader". This is a clear reference to the Greek Tragedy of Oedipus, who killed his father without knowing his victim's identity until it was too late. Furthermore, the loss of Luke's arm is symbolic of the castration of the hero or circumcision (Gordon 1980). A mythological theme found in many cultures that fits the plot perfectly as Luke appears in the final movie as a mature hero.

In the final film, Luke faces the Emperor and his father where he defeats Darth Vader by cutting his hand in return. But Luke's refusal to give his father the final blow is an act of atonement with his father figure. The Emperor is then defeated by Darth Vader who turns back to the good side.

Han Solo

In first film, Solo helps Luke by repelling the TIE Fighters and Darth Vader from his friends, in order to give him time to destroy the Death Star.

In the second film, Han is betrayed and forced to face Darth Vader ending with his imprisonment and then frozen in carbonite.

In the Final film, Solo manages to lead the rebels and destroy the Empire base on Endor disabling the shields of the Death Star, allowing the pilots to destroy it.

Flight and Return:

Luke Skywalker

After the destruction of the Death Star, Luke is awarded a medal for his achievments. In the second Film, Luke manages to escape Darth Vader and is saved by Leia and then return in the

final film as an improved character. Finally, after the death of the emperor, Luke escapes the Death Star in an imperial ship and returns to Endor for the celebration of the rebel victory as a Jedi Master.

Han Solo

Solo also receives a medal for his deeds with Luke after the destruction of the Death Star. In the second Han Solo becomes a captive, gets frozen in carbonite by Darth Vader and manages to survive the process. He brought back to life by his friends during their attempt to rescue him from Jabba the Hutt. Finally Solo returns to the celebration with his friends.

The Hero	Call to adventure	Traversing the Threshold	Tests and Trials	Greatest Trial and blessings	Flight	Return
Luke Skywalker	XX	XX	XX	XX	XX	XX
Han Solo	XX	XX	XX	XX	XX	XX

Table 5.2 Luke and Han's Monomyth

The "X" represents a phase completed, the "XXX" are marked because the cycle was completed three times.

5.3 Chapter Conclusion:

It is interesting how both films follow each of the ingredients of the Elvish Remedy accurately. In both cases, the events are occurring in a separate universe or secondary world presenting the elements characterizing a Fairy-Story and its functions. These two secondary world presented familiar and unfamiliar elements to their viewers, structured upon the adventures of mortal human heroes while interacting with elements from the faerie world whose existence was justified

through the display of elaborate detail. Furthermore, as the analysis shows, the Hero cycle was not only completed multiple times (three times with *Lord of The Rings* and twice with *Star Wars*) but it was executed with such precision and fine attention to design that each character played the initiator of his own adventure while being a supporter of another's. The result was the presentation of a narrative, accurately representing aspects of life through Fantasy, driven by well-functioning characters interacting with each other in a unforced natural manner.

In addition, each character, whether a hero, helper or a villain, was able to evoke a deeper meaning in the adventure than just an entertainment blockbuster. Campbell (1988) explains that *The Star Wars* does communicate with its audience and it also deals with issues in modern society. Darth Vader represents the men in power overrun by greed, submitting to a system that works like a machine. The unmasking of Vader in the end of the trilogy is the removal of the uniform. The *Star Wars*, in some way, deals with the choice between allowing one's humanity to be taken over by the machine (as Darth Vader lost his humanity by becoming a machine and a servant of evil) or to overcome it and use for the good of society. This process explains why *the original Star Wars* are still relevant today with the old and younger generations and why it developed a huge cult following with its fans. A similar process occurred in *Lord of the Rings* as explained in the related case study, especially with the creature Gollum who, despite its appearance, managed to become one of the most influential characters of all time. All of this is due to these characters' commitment to the Elvish Remedy and its application within the technical spectrum.

Chapter 6

Uncanny Films

This chapter is reserved for the study and analysis of three failed films in the light of the Elvish Remedy: Final Fantasy, Beowulf, and Tintin. Each case study will be introduced then defined based on its cultural background, followed by an application of Elvish Remedy framework, leading to the conclusion. This defines the main structure of the case studies. But certain elements will be discussed, according to certain needs, based on the previously presented principles on character design. It is important to include the visual aspect of the character within their function in the narrative structure, since the combination of these traits are crucial elements in character design. The analysis should reveal the reasons behind the failure of these films; specifically in the messages the characters are trying to communicate to their audiences.

6.1 Final Fantasy

As the first entirely computer-animated photorealistic film, *Final Fantasy: The Spirits Within* was such a commercial failure that *Square Pictures* got bankrupt and was forced to shut down (Monnet 2004, p 97). The film is mentioned in many references that discuss realism in animation and the Uncanny Valley (Monnet 2004; Pollick, 2010; Steckenfinger & Ghanzafar 2009). From these articles, the one written by Livia Monnet (2004) stands out as it explores the issues of the film from different perspectives while revealing that the technological achievement has little to do with the uncanny phenomenon that occurred in the film. Monnet's case study on this film will provide adequate information not found in other articles that can be used in the analysis of this film in

light of the Elvish Remedy we have developed.

6.1.1Background:

Starting with the usually referred to issues, it is argued that the disturbing aspect of the film comes from the unnatural movement of its characters. As the first fully animated film, the motion capture was not as sophisticated as it is today. As a result, the characters seemed like lifeless puppets being haunted by the actors' movements through the motion capture suit's recorded data (Monnet 2004, p 99). But there are far greater elements at work in this film that became a rich source of uncanny effects. The main issue lies not in the technological approaches used in the film, but the representation and conceptualization of life in a Fantasy and Science Fiction film (Monnet 2004, p 104). The film seeks to imagine and recreate certain familiar motifs and aspects of life that eventually produced uncanny effects based on the double repression that appeared in Freud's discussion on the suppression of the potential aliveness (Monnet 2004, p 97). It was mentioned in Chapter Three that, according to Freud (1955), incorporating certain fictional elements in the real world could generate certain uncanny effects just as it occurred in "The Sandman." Monnet's article provides information on how this process occurred in *Final Fantasy*. By exploring the details provided by Monnet (2004), it is interesting to point out that the uncanny effect was generated from three different sources. These will be discussed in the following sections of this case study as they can be directly linked to the theoretical framework of our proposed Elvish Remedy.

6.1.2 Analysis based on The Elvish Remedy

It is clear that this film contains elements from mythological motifs such as the Gaia, the earth mother from which all life came; and the representation of life and death through the experience of human characters in the film. But according the analysis done by Monnet (2004), elements in

the movie were presented in an unconvincing plot and weak imagination. According to Richard Doyle, many of the uncanny effects in the film were produced by the presentation of artificial life as a rhetoric (Monnet 2004). These uncanny rhetorics produce these negative effects as they are manifestations or representations of life itself within a digital world but somehow their presence was not fully justified. Through Tolkien, the issue related to the weak imagination in the film can be pinpointed as his notion on *Sub-Creation* deals with the justification of the presence of imaginary elements and render them believable. Starting with the world itself, the events of the film occur on earth and more specifically the city of New York in a futuristic time frame. The city is shown modified from the one familiar to the viewer but this goes against the notion of Sub-Creation by not creating a new world bound by its own rules. The filmmaker should be confined within the rules that the audience is aware of in relation to the world they know, but as the film depicts the rules were changed therefore breaking the guideline related to the *creation of a Fairy-Story*. By doing so, *the Functions* of this secondary world will not be as efficient.

Fantasy:

Since this secondary world was presented as a futuristic version of the primary one, strange elements were being visually forced upon the viewer without any justification for their existence. For example, in the beginning of the film it is made clear that earth is under peril from an alien invasion. This later is shown to be a mistaken notion and that the human race lost to angry alien spirits thrown away from their destroyed homeland. Even before this discovery, these spirits are presented as physical life forms that are capable of being killed even though they are ghosts of dead aliens. These ghosts also featured the ability to not only consume human spirits but also infect some of their victims' DNA with their particles allowing a phantom entity to grow within the human body. Furthermore, at the end of the film the earth is suddenly presented as a super organism containing a blue Gaia at its core (Monnet 2004). Relating this concept to Tolkien from

the perspective of Sub-Creation, the film provided no justification to the presentation of the spirits, of both the alien and the earth, as physical matter capable of corrupting or creating life while also disregarding any known notions related to the familiar world where the events of the film are also occurring.

Recovery and Escape:

By using the same known locations (Earth, New York City) as a secondary world with an unjustified presence of familiar and unfamiliar elements, the visuals provided little room for the audience to escape their familiar world and recover in the secondary one. In Sub-Creation, the secondary world should reflect or resemble the primary one while featuring foreign elements to allow the viewers the recovery and escape. In Final Fantasy: The Spirits Within, the primary world is presented through modification as the secondary one and reflects no perspectives on the first through any form of metaphor. Therefore leaving no elements for the viewers to identify or empathize.

Consolation:

Even though the film presented a resolution to the problematic at the end, the functions of Sub-Creation should be provided as a whole to produce a positive joyful effect. This film fails to achieve an adequate consolation as the viewers could not relate to any of the presented visuals.

Moving on to the analysis of the narrative structure based on the Monomyth, the character archetypes and their symbolism, Richard Doyle pointed out that the characters in the film produce an uncanny effect not because of their photorealism but due to their representation of the vitality of life through the disappearance of its "materiality and sovereignty" (Monnet 2004, p 107). It is interesting to discuss certain elements as they originate from myths and how they were

represented in the film. The most striking character is Gaia, a mythological character found in Greek Mythology defined as the earth mother from whom the other titans and gods came into being (Houle 2001). In the film, Gaia is presented in a more literal form as a super organism that is capable of creating life through its essence by coding the life form's DNA (Monnet 2004). Campbell (2004, pp 230 - 231) argued that whenever a civilization reinterprets a myth as a biography, history or science, life is taken out of the myth and the link between the two perspectives (primary and secondary world) is destroyed and therefore the myth is killed. A similar thing occurred with the presentation of Gaia in an unjustified scientific perspective. Due to this manner of representing reality, the film seems to suggest that life is already coded information making it as artificial as the characters that dwell within the world they exist in (Monnet 2004). This artificial life as discussed earlier produces an uncanny rhetoric that is presented by an inadequate interaction between the characters and their environment. This aspect will be discussed in detail in the following sections following the journey of Aki, the film's Hero.

Call to adventure and traversing the threshold



Fig. 6.1 Aki Source: http://wallpaperson.net/photo/mo vies/dr aki ross/27-0-2874

From the start of the film, Aki (Fig. 6.1) is revealed to be the key to humankind's salvation. As a phantom bearer, Aki is clearly given two objectives to perform through visions she receives from the invading phantoms. The first objective to unveil the secret behind the presence of the phantoms after the destruction of their planet and to warn the human race of the similar fate that awaits them. The second mission involves her sacrifice that will enable her whole planet and race to survive (Monnet 2004). Furthermore, Aki works under Dr. Sid (Helper/Mentor character) with whom she tried to convince the council to support their research in the quest to neutralize the alien threat.

Tests and Trials:

Aki meets Captain Gray and his crew with whom she goes on the search for the spirits that will theoretically form an antidote that will neutralize the alien invasion. This quest takes the crew to various phantom infested areas where they find the spirits and barely escape from the alien attack. The trials also involve Aki and Dr. Sid's struggle to maintain support from the city's council. But throughout these trials, Aki appears as a passive character while the other "Helper" character are receiving credit for the work done. Monnet describes Aki as a "passive, deprived of agency, a vanishing medium as well as a vanishing woman" (2004, p 110).

Greatest Challenge:

The final spirit that needed to be found turned out to be a phantom. Aki, Gray and Dr. Sid went to the crater where the meteor containing the phantoms landed to find the final spirit. The quest turns into a greater challenge as the phantom Gaia becomes more powerful after it was hit by the weapon dubbed as the Zeus cannon. But it was Dr. Sid who discovers the energy pattern of the spirit and merges it into Aki's breastplate (the device keeping the phantom within her to spread

and consumer her spirit) in order to transmit the cure to the phantom invaders. Finally, it was not Aki but Captain Gray who transmits the energy pattern and sacrifices himself to save the human race and the planet, dying a martyr's death.

Flight and Return:

After restoring Gaia to its initial form, the phantom spirits are laid to rest at peace and Aki is lifted up from the crater with Gray's dead body by Dr. Sid.

Focus	Call to adventure	Traversing the Threshold	Tests and Trials	Greatest Trial and blessings	Flight	Return
The narrative	X	X	X	Х	X	X
Aki	X	X	N/A	N/A	X	X

Table 6.1 Final Fantasy and Aki's Monomyth

Table 6.1 was presented in this manner due to the fact that the narrative was complete but as far as the Hero cycle goes, it was not. As mentioned earlier, Aki was presented as a passive or a vanishing character. Her function as the Hero was not fulfilled as it was taken over by the Helper characters. It is a form of abduction, where the Hero is presented out of place and acting as a helper and vice versa.

6.2 Beowulf

This 2007 film adaptation of the Anglo-Saxon epic poem of the same title featured a hyper realistic representation of a virtual world and animated characters. The animation was improved

significantly by comparison to previous films such as "Final Fantasy" and "Polar Express" due to a much more developed motion capture technology, especially the one specific for eye movement, which was based on an extensive biological study of the eye. (Geller 2008, pp 12-13). Despite these improvements, the film did not achieve critical acclaim and the characters were criticized for falling in the Uncanny Valley. In this case study the issue of character functionality will be studied according to the framework of the Elvish Remedy. However, given that this particular animation movie has its roots in an old myth, we shall have to present the epic first before we move on to the movie.

6.2.1 Background:

Unlike other famous myths from other cultures, *Beowulf* has a straightforward and less complicated narrative structure. It mostly presents the Hero battling monsters without leaving any details on other matters such as his life as a king. The *Beowulf* myth dates long before the known written version of the 8th century (Tolkien 1936 p. 251). Tolkien argues that an orally told myth as significant as Beowulf's adventure cannot be easily written down on paper through an analytic structure since an important element of its grandeur will be lost. (1936 p. 256) Therefore, in order to preserve the balance between the hero's impressive deeds and the simplicity of the narrative, the myth was written in a form of an epic poem. Regardless of the latter's narrative style, it incorporates a mixture of elements from history, myth, archeology and language.

In his critique of *Beowulf*, Tolkien focused on the monsters the hero slew as one of the most crucial characters in the story. (1936 p. 246) To be better understood, the choice of the creatures presented in the myth and their function in turning a very simple story into a more coherent and well-built narrative, it is important to analyze its culture and the archetypes presented.

There's another aspect of this myth that differs from Greek myths and it is a major

influence on the structure of the plot: The gods and the monsters in Norse Mythology. In Greek Mythology, the heroes are pawns in the gods' schemes and each monster is an ally of a specific god where they pose as obstacles in the heroes' quests and therefore not a depiction of good versus evil. For example, by devouring humans, The Cyclops Polyphemus was considered as an agent acting against Zeus but the Cyclops is under Poseidon's protection and when Odysseus stabbed the Cyclops in his eye, Poseidon was angered (Tolkien 1936 p. 251). In Norse Mythology, on the other hand, the monsters are considered as creatures from hell that are always in conflict with the gods. The latter are aware that these monsters will be their undoing in Ragnarock (the Nordic version of judgment day). Thor kills the world serpent Jörmungandr and then dies from the serpents poison after walking nine steps (Mortensen 1913 pp 70). The gods therefore form an alliance with the human heroes for their final stand in the final battle between good and evil, only the warriors who have died bravely and gloriously in battle are allowed to enter the halls of Valhalla, while those who die of old age are sent to hell. Ragnarok features the death of all the gods, monsters, humans and only the worthy will be reborn as new beings who will govern the new world (Mortensen 1913 pp 64 & p 128). Now that the cultural background is established the analysis of the creature in Beowulf's epic can be developed.

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6.2.2 The Monsters in Beowulf according to Tolkien and Campbell:

For the purposes of this study it is crucial to clarify the symbolic significance of the characters before proceeding with the analysis based on the remaining ingredients of the Elvish Remedy. The monsters of the Beowulf epic play a major role in providing an intense struggle between good and evil despite the simple plot (Tolkien 1936 p. 266). The epic provides three enemies for the hero to defeat, each one more challenging than the previous. What better way to do achieve this than to

present the extreme of hellish beasts to further glorify the hero of the epic and guarantee his place in Valhalla? (Tolkien, 1936 p. 276).

Grendel, a giant Troll like creature who is irritated by the humans gathering to feast in the mead hall Heorot, is the first challenge Beowulf faces and defeats. Grendel's mother seeks revenge and proves to be a more challenging foe that cannot be killed by any normal blades. Beowulf finds a magical sword in her cave among its treasures and kills her (Tolkien 1936 p. 278-280). The final challenge proves to be the most difficult. After returning to his homeland and becoming its ruler, Beowulf faces a dragon that attacked his kingdom looking for gold, Beowulf defeats the beast and then dies from his mortal wounds (Tolkien 1936 p. 276). According to Campbell, the dragon in western civilization is the symbol of greed since it hoards gold and virgins even though it cannot make use of either (Campbell & Moyers 1988). Tolkien mentioned that slaying a dragon is a Hero's greatest deed (1936 p. 257 - 259). It is the incarnation of malice and greed, bringing with it a curse on whoever is foolish enough to keep its gold (Callahan 1972 p. 5). Killing this creature proved that Beowulf is worthy of joining the gods and no longer has a role to play on earth since there is no greater challenge than slaying a dragon (Tolkien 1936 p. 276).

In the *Power of Myth*, Campbell (1988) also argued that many heroes achieve a great deed, reach a higher of form of existence and their egoism brings them back to a lower form such as when Beowulf becomes king and puts forth into action his rule over the people. It is by killing a dragon, saving his people and then dying that brought the aged Beowulf back to the grace of the gods and into a higher form of being.¹¹

¹¹ For more on analysis of the poem see Appendix.

6.2.3 The film according to the Elvish Remedy:

The film featured many elements from the poem, some were taken as depicted in the poem others redesigned for the film. In the Film, the world itself is set according to its depiction in the poem. The events take part in Denmark, a primary world, but revolving the adventures and struggles of a mortal man with metaphorical presentation of mythical creatures and daemonic beings. This proves that this film could contain the functions of a Fairy-Story. Concerning the presentation of the world with all its elements, the movie did provide the audience room to recover and escape through the depiction of a familiar world set in an older era with unfamiliar elements. But of the creatures that were modified from the original version to fit the movie's rendition of the myth. Grendel's mother was presented as a beautiful demon who lured and tricked Beowulf to bare her a child which turned out to be the dragon. The focus on greed in the form of the dragon was changed to lust and greed in a form of a beautiful woman. The symbolism of the dragon as described by Tolkien and Campbell was reduced into a lesser representation of evil (greed to Beowulf's monstrous son with father issues). Since this reduction occurred it means that the use of Fantasy in this film was not detailed and elaborate as in the poem, not to mention the lack of justification of the presentation of certain scenes in the film that seemed to diminish Beowulf's heroic qualities. Such as the scene narrated by the hero depicting his battle with the sea monsters and being dragged to the bottom of the sea. Furthermore, since Beowulf only kills the dragon and not the demon before dying, who in this case is his greatest challenge, leaves the demon to attempt its trick on Wiglaf and ending the movie with a mystery. The ending offers little resolution to the plot and leaves the audience without any consolation. This can be further explained by analyzing the film based on the guideline built on the Monomyth.

Call to adventure and traversing the threshold:

Beowulf (hero) leaves his homeland with his warriors (helpers) and reaches Hrothgar's kingdom and receives instruction from the king concerning the monster Grendel (first challenge).

Test and Trials:

Grendel annoyed by the noise coming from the mead hall attacks the warriors. Beowulf faces Grendel in the Hrothgar's mead hall without a sword, considering that fighting Grendel with a weapon will be unfair for the monster. Finally, the beast is defeated by Beowulf, runs away and dies in his cave.

Greater Challenge:

Beowulf goes to Grendel's mother's cave to slay the beast after it slayed the sleeping warriors to avenge the death of her son. Beowulf falls for her beauty and tempted by her offer, accepts the demon's deal.

Flight and Return:

Beowulf returns to Hrothgar and lies about killing the demon, leading to Hrothgar's suicide due to the demon's curse and Beowulf becomes king.

Call to adventure and traversing the threshold:

Beowulf's kingdom gets attacked by his forgotten son who appears in the form of a dragon after a peasant finds the golden horn in Grendel's mother's swamp.

Test Trial:

Beowulf fights the dragon, Beowulf manages to kill the monster but dies from his mortal wounds

and is therefore unable to face Grendel's mother again. Before dying, Beowulf confesses to Wiglaf his misleading stories. The demon appears trying to tempt Wiglaf with its promises and the movie ends.

Movies	Zall to	Traversing the Threshold	Cests and	Greatest Trial	Flight	Return
Beowulf	XX	XX	XX	X	X	X

Table 6.2 Beowulf's Monomyth

6.3 Tintin and The Secret of The Unicorn

This 2011 film adaptation of the popular children's comic book by Hergé proved to be a success as it won a golden globe award for best animated feature and was nominated for many others. Despite its success, the film was criticized for falling into the Uncanny Valley where the main character was described as weirdly fetal with glassy lifeless eyes (Rose 2011). Furthermore, Tom Mccarthy (2011) criticized the movie as well for lacking believable elements in the events that occur in the film. This case study deconstructs and investigates the various elements of "Tintin and the Secret of the Unicorn" following the same structure of the previous case studies.

6.3.1 Background:

The interesting and humorous illustrations and narratives in the Tintin comics were only a small

part of the success of this influential character. Jean-Marie Apostolidès (2009), a French literature professor at Stanford University states that Tintin's character has a much deeper and powerful meaning that goes beyond the comics. Apostolidès (2007) explains that Hergé was not only able to create a successful comic series but also a myth whose main character is, as Apostolidès dubs it, the Superchild.

Hergé's Superchild was not the original appearance of this character. Many instances of this character appeared prior to Tintin, the first appeared after the French were defeated in the battle of Sedan in 1870. During that period, the skeptic younger generation began to question and revolt against their parents' motives. This phenomenon later appeared after World War 1 and World War 2, not only in society but also in films and plays. The most prominent examples of the Superchild character were the works of Hergé: *The Adventures of Tintin* (1929 -1974) and *Jo, Zette and Jocko* (1935 - 1958). Both are quite different examples of the Superchild, but what makes Tintin such an influential figure? The answer can be obtained by deconstructing the characters of each case. (Apostolidès 2007)

In the case of Jo, Zette and Jocko, as Superchildren they aim to defeat monstrous and evil versions of parental figures but are unable to do so on their own. They rely on their real parents for help in order to achieve their goals. The notion of the conventional family is preserved. Furthermore, the world, in which the adventures of the three heroes occur, is only temporary. Their fate is the same as any child in the world: growing up. This process does not allow them to achieve the highest status of the Superchild. Tintin, on the other hand, breaks all usual notions of the family. He's a character, without a last name, who also aims to defeat evil but the manner with which this process occurs is different than one presented in the case of Jo, Zette and Jocko. The world of Tintin is presented as forever frozen in time. This allows the hero to pursue his endeavors in various instances of adventures consisting of a constant battle between good and evil

without physically growing up, but only mentally maturing. Evil was presented as archaic parental figures who Tintin aimed to defeat but, unlike *Jo, Zette and Jocko*, Tintin's real parents were never introduced in the comics. The interesting aspect of Tintin's version of the Superchild, is that not only does the hero symbolically revolt against the previous generation but also reconciles with it. Furthermore, a main element of Tintin's character is his victory against evil but never the reason for its death or destruction, which allows him to preserve his purity. In order for these two notions to be accomplished, other characters were provided to aid Tintin in his adventures who symbolize the less conservative parental characters, forming a different notion of a family not bound by blood, with whom the hero could reconcile. The most important of these characters were Captain Hadock and professor Calculus whose role will be developed further in the analysis section based on the Monomyth and various character archetypes.

This process of defeating the archaic parental figures and at the same time reconcile with the others, was a major influence as it was equally perceived after the 2nd World War by both the left and right wing supporters. In result, *The Adventures of Tintin* series were not only acclaimed for their aesthetic (both visual and narrative) but as a universal myth that created a unity of opinion between different perspectives that eventually became directly linked to the events and protests of 1968 (that overthrew the previous archaic rule), especially with the fall of the patriarchal structure in many western countries (Apostolidès, 2007).

6.3.2 Analysis based on the Elvish Remedy:

As mentioned earlier, Tom Mccarthy (2011) described scenes from the film as boring, relying heavily on visual effects allowing the characters to perform almost impossible feats and therefore lacking belief. *Tintin*, described earlier as a Myth, was originally illustrated as a cartoon and then

rendered as a realistically animated film in 2011. Realism requires more details and elements to achieve believability, therefore analyzing this film according to the Elvish Remedy a process with which an imaginary world can be created and falls into our primary belief, will provide answers to the reasons behind the criticisms of some aspect of this film.

According to the first proposed guideline, the secondary world of a Fairy Story should not be a copy of the primary familiar one in order to achieve believability. In this case, the created secondary world present fictitious cities from the primary world, such as the Moroccan city of Bagghar, rather than an original creation of a world built on its own rules and not only separate from the world we live in but also will never collide with it. Since the first guideline passed, the functions of a Fairy Story should be present.

Fantasy:

Some of the events that occurred in the movie feature some accomplishments that would be convincing and humorous in a caricature that suspends disbelief but are unconvincing in a realistic medium. The most prominent scene full of unconvincing events is the chase in Bagghar with Tintin, Cpt. Hadock and Snowy running away from the villains while trying to catch the hawk carrying the three old parchments. For example, an animated film focusing on realism, a dog biting on an old parchment that is being carried away by a flying hawk hardly seems believable. Furthermore, the world of Tintin is built on the notion of time being forever static allowing Tintin to remain young and reach the status of Superchild. Tolkien (1969) gave the example of the "green sun", stating that it is not enough to create it but must place the rules that govern the possibility of

its existence. In the case of Tintin, especially since it is built on a realistic animation occurring in a world that is more primary than secondary, the fantasy element of time being static is incomplete and in need of more details.

Recovery and escape:

The idea of the existence of a secondary world with its own original strange elements that symbolically represents those of our primary world is non-existent in the case of Tintin, except for the case for the fictional city of Bagghar. But the fact that this city is placed in a country from the real world, it does not provide the viewer the necessary information to perceive the latter from a different perspective that allows the occurrence of the escape function of Sub-creation. The only elements that exist in the film that fall under the category of "Recovery and Escape" are the plot where the problematic and the events are presented. But this does not provide the viewers enough information to intensify their belief of what was presented.

Consolation:

This function is presented in the film, since the plot element from the previous functions is available with a resolution at the end that provided the viewers the joyful happy ending in the movie. The following paragraphs analyze and study the commitment of the *characters* presented in the film according their dedication to their *archetypal function* in the Monomyth and the *symbolic significance* of the "Myth of the Superchild".

The film starts in the market with Tintin getting himself drawn into a caricature and then buys a highly desirable wooden model of a ship. Interested in the reasons behind the model's high desirability, he takes it back home (where it gets broken while Snowy chases a cat who managed to get inside the house) and sets off to the library to learn its history. At his return, he discovers that someone broke and wrecked his apartment to steal his ship model. Tintin seeks one of the costumers who wanted to buy the ship from him, only to find that he possessed another copy of what was considered a unique model. Tintin returns home confused of this event and discovered the parchment that fell from the broken stolen ship, only to get kidnapped a few minutes later in the movie. The hero awakens in a cell on the villain's ship, manages to escape and meet with another prisoner, Hadock the original Captain of the ship.

By studying the main character and his presentation in the beginning of the movie, it appears that the original Tintin caricature was given tribute as the 3D Tintin was being drawn by, who appears to be, Herge as the character familiar to everyone. Furthermore, it is interesting to note that since the Tintin character falls under the category of the highest status of Superchild, it is logical that his character should appear as a character that never ages physically which explains the reason behind his appearance with a childish face or as Rose describes it as a "fetal face." (2011) The traversing of threshold of adventure became clear when Tintin found himself trapped on the villain's ship seeking to escape and meeting with the first major helper in his quest (besides Thompson and Thompson who briefly appear in the beginning), the drunken captain Hadock.

Test and Trials:

Tintin and Cpt. Hadock go through a series of trials: escaping the villain's ship, trying to find land while stranded in the ocean, fighting a fighter jet, trying to survive in the desert, searching for the remaining parchments and protecting them.

All of these events feature feats that only seem possible in the original cartoon versions as if the film was still paying tribute to the original franchise by adding a twist of realism. During these events Tintin comes to understand and live with the captain's drinking problem and work together to understand the reason behind the importance of the scrolls found within the modeled ships. They trace their research to the battle between captain Hadock's and the villain's ancestors that is still in play.

The idea of Tintin's quest to defeat Sakharine, the descendent of Red Rackham whose main purpose is to avenge his ancestor, falls under the battle of the Superchild against the archaic parental figures as explained in the Cultural Background section, just as the role of captain Hadock falls under the category of the new modern and less conservative paternal figure.

Greater Challenge:

Tintin and captain Hadock fail to protect the scrolls and lose them to Sakharine. As they come to accept and grief for their failure and their flaws (i.e. captain Hadock's drinking problem), Tintin figures out a plan to catch Sakharine and get back the scrolls. When they finally catch up with their foe, in order for Tintin to preserve the purity of his status, it is Hadock who fights and defeats the villain as he overcome his weakness for alcoholic beverages. This process allows Hadock to become a better paternal figure, allowing reconciliation with the Superchild character.

Flight and Return:

Tintin and Hadock discover the location of the hidden treasure. They follow the coordinates and arrive at the estate that belonged to the Hadock family where they discover a secret room containing the treasure and another clue to the location of the remaining gold that sunk at the bottom of the ocean, ending the movie with a cliffhanger presenting a new call for adventure.

Myth	all to	raversing e Threshold	ests and rials	reatest Trial	Flight	eturn
Tintin's adventure	X	X	X	X Q #	X	X

Table 6.3 Tintin's Monomyth

6.4 Chapter Conclusion

By examining the analysis of each case study, it is clear that these films failed to achieve what the examples of the previous chapter did, committing to the Elvish Remedy. Starting with the first case study of this chapter, the first fully animated photorealistic film, *Final Fantasy* did not meet any success. A result usually attributed to the uncanny effect produced by the motion capture animated realistic characters. As it was explained, this presents a small aspect of the problem due to the fact that the technology used at the time was at its early phase and the movement it produced was very mechanical or unnatural. But the information provided by the case study conducted by Monnet (2004) and its analysis in the light of the Elvish Remedy revealed another aspect of the problematic that has not been previously considered. Through Tolkien, it is revealed

that the secondary world was not imagined as a separate universe functioning with its own rules, but a replica of the primary world with modified rules without any justification or enough information to allow the viewers to identify with its familiar elements allowing the process of recovery and escape. The detachment of the viewers from the visual caused the process of consolation to be difficult to achieve, even though the ending presented a very simplistic resolution of the problematic. The imaginary elements that were presented in the film seemed to be forced in the film by its maker and that has produced an "excess of life," as Monnet (2004) would describe it, thus failing to live up to the expectation of its viewers.

Another aspect of the issue that the movie faced was the lack of adequate interaction and functionality of its characters between each other and the environment to create a solid narrative. Aki was presented throughout the film as the savior or the Hero of the story, but never did her job as the Hero. The Hero's cycle seems to be complete but it is depicting the actions of the other characters. The martyred death of Captain Gray by sacrificing himself and saving the human race and Dr. Sid being the main benefactor of any scientific discoveries. What the movie seems to depict is the focus on the male characters while repressing or even erasing any credible female presence in the film. As Mitchell (2005, p 140) would argue, an image is capable of communicating an infinite number of statements. It acts like a Ventriloquist's dummy where the viewer is the ventriloquist project his voice into it. There's a risk of uncanny occurrence if the projection was forced as it appeared to have occurred in *Final Fantasy: The Spirits Within* where it forces its visuals filled with unnatural, unconvincing and forced elements and behaviors unto its audience.

A similar phenomenon occurred in *Beowulf*, where the first part of the film was accurately established according to the epic poem, Beowulf kills Grendel and informs Hrothgar of his victory in both versions of the myth, but the cycle in the second part of the film was broken and the

characters were presented in a less functional manner but were exposed to show off the technology used without any thought of design. it appears that the focus when creating the characters was not functionality. I agree with Roger Ebert (2007) who points out in his review of the film that the script did not seem to fit the myth and it would rather suit a comedy film instead. Furthermore, Ebert draws attention to Angelina Jolie's character as a bizarre naked body without any element of it being nude and most importantly the character with spiky high heels (Fig. 6.2) for feet instead of shoes (Ebert 2007).

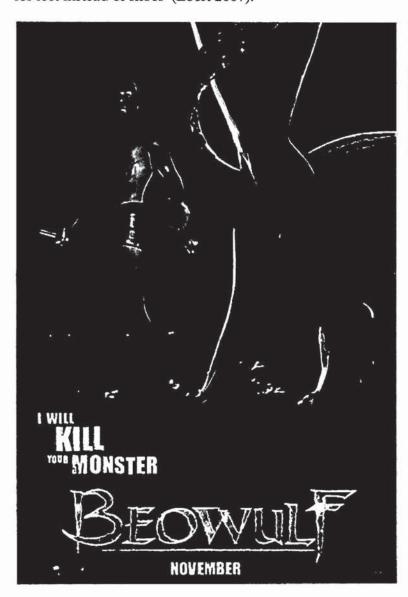


Fig 6.2 CGI high heels Source: http://www.allocine.fr/film/fich efilm-59408/photos/detail/?cmediafile =18858494

Tolkien (1936 p. 270) describes the Beowulf Poem as a myth established through thought and

design. Every element was a functioning tool to hold the narrative together allowing it to reach out for the people it addressed during its time. Evaluating what was described with the tables of the Monomyth. The influential poem follows the Monomyth while staying true to the character archetypes presented. As for the film, it presents an overpowering use of excellent technical skills put at the service of a sloppy plot that could have been salvaged had it at least stuck close to the original poem, which is consistent with the theoretical framework of the Elvish Remedy (see Appendix).

The final case study presented a different form of inconsistency to the Elvish Remedy worth mentioning. Although the film does not exactly follow the original comic book's story, the narrative of the film commits to the cycle of the Monomyth perfectly. The characters are committed with their archetypal roles: Tintin being the hero Superchild, Hadock the hero's helper who undertakes foolish activities due to his weakness to alcohol, the villain and the animal companion. It is interesting to note the choice of Hadock's character. Being the fool and the paternal figure, this aspect gives the superchild the ability to take charge of all actions as explained by Jean-Marie Apostolidès (2007) in his article" Hergé and the Myth of the Superchild". Furthermore, since the myth of the superchild is based on a world where the hero will remain forever young physically and only mature mentally while keeping his innocent, captain Hadock provides the means for Tintin to remain innocent while defeating the villain. This process justifies the reason behind the childish appearance of Tintin.

However, the film featured many events that would seem impossible to be accomplished in reality, despite the realistic medium applied in the movie. It appears that the film was paying tribute to the original series, keeping some humorous caricatured features in the animation. Due to the approach just mention and the lack of the film's commitment to the process of sub-creation, the movie did not fall in the viewer's primary belief and therefore disbelief was suspended instead

of being intensified. Therefore, realism might not be the most effective medium to apply on the narrative nature and structure of Tintin's adventures if the filmmakers were aiming for believability. Despite the lack of the latter, the film managed to achieve greater success than previous realistically animated movies and was awarded a golden globe for best animated movie.

Chapter 7: Thesis Conclusion

It is through the process of animation that figures or drawings are brought to life and as a result create the illusion of life or a semblance of reality (Wells, 1998, p 10). These animations usually depict a certain narrative that is driven by its main engine, crucial elements found in any form of storytelling mediums defined as characters. Characters are designed in order to serve the story in the most efficient way possible, with the goal of communicating the narrative to the audience.

With the evolution of technology, a new genre of animation emerged that altered the conventional meaning of realism in animation to a new one. The new result was based on the copy of the character's recorded movement through motion capture and even, in some cases, creating digital replicas of actors. The consequences were unexpected as many of these films did not achieve any critical acclaim. The popular reason proposed by critics is the "Uncanny Valley", a notion proposed by Masahiro Mori in 1970. The notion claims that the level of empathy with characters will increase as the characters become more realistic until a certain point where the empathy level will drop and the audience will reject the characters.

This thesis has shown that current approaches to avoid the Uncanny Valley, which focus on the improvement of technology, are incomplete. There remains the fundamental problem of character design, narrative, and functionality. These missing elements were crucially established in previous animated films, as principles, to present characters with whom the audience can connect to within a reality with a certain "Verisimilitude". Livia Monnet's excellent study of Final Fantasy: The Spirits Within, the first animated film to fall prey to the Uncanny Valley, revealed this problem clearly. We recall that the characters in that film did not work together to create a strong narrative. On the contrary, the main character did not act as the "Hero" of the film, as some characters took over the task and others were suddenly introduced with no justified reason. It was a classic example of the Uncanny effect.

The first clue for the solution proposed by this thesis was an essay written by Freud on the uncanny, which showed that the uncanny phenomenon takes effect when strange elements were presented outside their own realm without any justification (notions of ghost sightings for example). Freud argued that Fairy Tales present an absence of uncanny elements as their existence within that created world is usually justified. One of the two genres of Fantasy stories Freud stresses on is based on a high resemblance of reality but is presented through metaphor and poetry.

This led us to a similar notion proposed by Tolkien dubbed "Sub-Creation." The result of this process leads to the creation of a secondary world, a Faerie world, that resembles the primary one but bound by its own separate rules. The secondary world will present the adventures of man and his interactions with the dwellers of Faerie world, whether mythical or human. To further elaborate this, Joseph Campbell offered the argument of this thesis information on the typical Hero cycles found within myths and the symbolic meaning of the characters presented within. He believed it was possible to create myths that reflect our modern society since cultures change and undergo different experiences. Campbell played a crucial role in the creation of the original *Star Wars*, a movie considered to be a modern myth as it follows the cycle perfectly and relies on mythical archetypal characters and an elaborate representation of separate universe as it was explained in the light of Tolkien.

The Elvish Remedy proposed and the theoretical framework developed are meant to be an aid for future design while relying on technological improvements and technical skills. Accordingly, this theoretical framework is necessaryfor the design of a believable character. As David Hanson puts it: "If the illusion of life can be created and maintained, the uncanny effects may be mitigated. It may be that any level of realism can be socially engaging if one designs aesthetics well" (Misselhorn 2009, pp. 349-350).

The quest to implement this theoretical framework will have to be postponed for future studies due to the lack of time, world limit, and the lack of the technologies needed. However, the Elvish Remedy framework can be used to guide any character design and development process. This has become even more urgent in a time when animation studios are filing for bankruptcy after their costly struggle to achieve highly elaborate and impressive works (for example the *Rhythm and hues Studios* incident that occurred after their production of *The Life of Pie*). If the result turns out to be successful, it could be the first step to creating a believable virtual reality. Finally, since character design is one of many design disciplines in animation, the foundation of this research could provide other research opportunities for other disciplines such as typography, fashion design, digital architecture and more, all under the umbrella of the Elvish Remedy.

Appendix

Analysis of the Beowulf Poem based on the Elvish Remedy

The *Beowulf* poem is considered one of the most important and influential documents in English and Anglo-Saxon literature, considering that it had a major influence on the people of its time. Furthermore, It's a major influence on Tolkien's "The Hobbit" and "Lord of the Rings".

It could be argued that the epic poem could not be considered a Fairy-Story, since it does not present a secondary world with its own rules. The world is presented with obvious references to Nordic tribes from the primary one. Nonetheless, the poem presents the adventure of a mortal man within a realm where the creatures, he interacts with, are presented through justified metaphors and possess a symbolic meaning that was relevant to the people of that time, based on their beliefs and customs. Furthermore, this can also be considered a *Fairy-Story* if it contains its listed four *functions: Fantasy, Recovery, Escape and Consolation*.

Fantasy:

Based on the analysis done in the previous sections of this case study, the use of Fantasy can be seen in the poet's elaborate use of his imagination in order to create empathy between the myth and the reader through various elements in the poem.

Since the plot of the myth is a simple one, the author used poetry to amplify the aesthetics of the myth to compensate what seems to be an effortless narrative. Furthermore, the use of specific creatures or monsters also helped in increasing the hero's magnificence. The chosen locations and monsters were all familiar to Nordic culture therefore creating a certain relation with the Anglo-Saxon reader or listener of that era. Dragons and trolls are not real but in the world of *Beowulf*, as described in the section dealing with Norse Mythology, they exists as part of the natural ecosystem in permanent struggle with the Gods and their human allies. Of these elements merged

together with a logical reason for their existence present a complex use of imagination from the poet which led to the creation of what Tolkien describes, in the "On fairy-Stories", essay as the "Inner Consistency of Reality".

Recovery and Escape:

The use of familiar elements (monsters and locations) created a bridge between the target audience and the content of the poem to achieve "Recovery". The presentation of mythological creatures in symbolic representation of evil, especially the dragon as the archetype of greed and the hero's greatest challenge, allows the readers or listener to look at familiar elements (good versus evil, greed, heroism, honor, etc) from a different and new perspective. This mixture of familiar and the imaginary, allows the reader to escape the limitations of the everyday world and experience events, even though familiar, in a new and more creative manner. For example, the struggle of Beowulf to defeat evil and redeem himself and his kingdom after the dragon attack is a typical representation of good versus evil and the resistance of the hero against the temptations of greed.

Consolation:

Even though the hero perishes after defeating the dragon and saving his people from the gold's curse, this event in the story should only be perceived as a happy ending of the Myth. As it was explained earlier (see "cultural background" and the "monsters in *Beowulf* according to Tolkien and Campbell"), by killing the dragon Beowulf is considered as a hero who conquered the greatest beast a warrior could face. The next logical phase the hero could submit himself to, is to join the Gods in Valhalla in preparation for their Cosmic Battle of Ragnarock. Had Beowulf lived, he will either be killed by a lesser beast or perish of old age which is considered in Nordic culture to be

the greatest shame a warrior could suffer. The Death of Beowulf is not an element of drama alone; it offers consolation to the readers of the poem that could empathize with this event since it represents a crucial element in their religious and cultural beliefs.

It is clear that the poem follows a Fairy-Story structure. Since that issue has been addressed, the myth will be analyzed based on the narrative structure of the Monomyth. According to Tolkien's "Beowulf, Monsters and Critics" the hero's adventure is divided into two parts based on his foes, Grendel and his mother as part one and the Dragon as part two. Therefore the adventure can be divided into two cycles.

Call to adventure and traversing the threshold:

Beowulf (hero) leaves his homeland with his warriors (helpers) and reaches Hrothgar's kingdom and receives instruction from the king concerning the monster Grendel (first challenge).

Test and Trials:

Grendel annoyed by the noise coming from the mead hall attacks the warriors. Beowulf faces Grendel in the Hrothgar's mead hall without a sword, considering that fighting Grendel with a weapon will be unfair for the monster. Finally, the beast is defeated by Beowulf, runs away and dies in his cave.

Greater Challenge:

Beowulf goes to Grendel's mother's cave to slay the beast after it attacked to avenge the death of her son. Beowulf is attacked underwater and fights back discovering that his sword cannot slay the beast. Beowulf manages to escape (the phase Campbell describes as "Coming out of the belly of the whale" a symbolic representation of rebirth) and finds a magical sword in the monster's cave and uses it to kill the troll's mother.

Flight and Return:

After saving Hrothgar's kingdom from the beasts, Beowulf returns to his homeland where he becomes king (a character of a higher level).

Call to adventure and traversing the threshold:

Beowulf's kingdom gets attacked by a dragon seeking Gold taken from its cave. Beowulf and his most trusted warrior (helper) went to face the fire breathing monster.

Test Trial

Beowulf fights the dragon and then was aided by his warrior; Beowulf manages to kill the monster but dies from his mortal wounds.

Before dying, Beowulf manages to order his advisor to bury the dragon's treasure with him to save his people from the dragon's curse (attracting another dragon seeking gold, see Tolkien's and Campbell's explanation about the symbolism of the dragon above).

Flight and Return:

As explained in the cultural background, the death of Beowulf in the world he lived in would lead an act of rebirth by joining the Gods in Valhalla.

Monomyth in a Table:

Myth	Call to adventure	Traversing the Threshold	Fests and Frials	Greatest Trial and blessings	Flight	Return
Beowulf (Poem)	XX	XX	XX	XX	XX	XX

The "X" represents a phase completed, the "XX" are marked because the cycle was completed twice.

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