# Leitmotif in Audio Description: Anchoring Information to Optimise Retrieval

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## **Abstract**

Leitmotifs are recurring themes and can occur in all kinds of creative work, including music, theatre, film, literature and poetry. A leitmotif can serve to aid memory or to bind a work together. It can be used as a device to add coherence to a whole, or to narrate a story without the use of words, adding an extra semiotic level to the narrative. So what to do when a recurrent theme has to be audio described in a film? It may be an image, a sound or a tune, which is associated with an emotion or with a key element in the development of the film narrative. Should it be explicitly highlighted by the description? The article begins with a brief presentation of leitmotif in films, providing various examples. It then focuses on one experiment, using eye-tracking and comprehension questions to test the reception and impact of information delivered by audio description on the user, and measuring how exogenous attention through audio description may impact on and interact with the audience. It is hoped that this article will pave the way toa different approach towards drafting audio description where explicitation is not seen as patronising and subjective, but as an audio narratological feature peculiarto audio description.

**Keywords:** Audio description, leitmotif, eye-tracking, reception, attention

## 1. Introduction

Audio description (AD) is the descriptive technique of inserting audio narration, explanations and descriptions of the settings, characters, and actions taking place in a variety of audiovisual media, when such information about these visual elements is not offered in the regular audio presentation. This ad hoc narrative can be created for any media representation: dynamic or static, i.e. from a guided city tour of Barcelona or a 3D film, to a Picasso painting. Its function is to make audiovisual texts available to all in order to avoid the risks of excluding a large sector of society whose needs require this special service to palliate their sensorial difficulties for reasons of health or age. While sounds don't need to be audio described, in some cases they also need to be taken into consideratio.

When people go to see a movie they always recall the plot and the characters. The different actions or conflicts which condition the characters and their development in the plot (Bordwell 1985) are understood by all, while the more symbolic messages and themes are interpreted and understood in different and uneven ways. Lehman and Luhr (1999: 169) commentonthediscrepancy in theunderstanding of films, or eventhesame film "can alsohavedifferentmeaningseven for thesameviewer at differenttimes". Theygofutherstatingthat "no movie has one right meaningthatevery viewer can 'get' by approaching it correctly'. It is also the case that "the meanings of a film are produced by viewers in their interactions withit" (Lehman and Luhr *ibid*), so to strive for a unique interpretation which will be delivered as audiodescription is perhaps a naïve conception of art and human cognition.

Films portray stories to which we can relate, as Porter-Abbot (2002:109) put it, from our cultural and social background: "we draw upon pre-existing *types* [...] out of which, guided by the narrative, we mentally synthesize, if not the character, something that stands for the character."

We identify characters as belonging to these known types according to the film genre: the die-hard detective, the naïve blond girl, the redIndian, etc which are ultimately associated (Frye 1957) to myths (Oedipus, Medea, Pygmalion, etc) or archetypes (God, the heroe, the shadow, etc.). The different plots where characters develop are also stereotyped: there are a finite number of narativesendured by the protagonist (Hogan 2003).

Film understanding and enjoyment is both easy and very hard. Film analysis poses endless difficulties given its complex nature: time, sound and images combine to create "An easy art, the cinema is in constant danger of falling victim to this easyness... A film is difficult to explain because it is easy to understand" (Metz 1974: 47). The paradoxical nature of film language manages to communicate meaning through two different manners: denotatively and connotatively. Films denote meaning in the sense that an image or soundare what they are and there is no need for further understanding "Film is what you can't imagine" (Monaco 1977:179).

Films can reproduce with great accuracy physical realities and the physical world, but when we enter the realm of the abstract, the symbolism of images and the essence of the themes, (is when) more interpretation is required. This is when attention should be paid to small elements in the construction of a film narrative, which are not basic for the description of the characters or the plot development, but reveal some coded information (Barthes 1957). One of the many rethorical figures in the narrative is the leitmotif.

The leitmotif is a very economic way to represent symbolically the theme of a film (Díez 2009: 238). The philosopher Charles Sanders Peirce would classify leitmotif as a symbol, since the concept is abstract (theme) and it is expressed by an image which does not have any objective relationship and makes reference to a different reality. The objective if this paper is to present the results from an experiment where leitmotifs were analysed in order to understand their perception and their possible association to the audio description strategy of explicitation, which can lead to the effect we will describe as "anchoring".

# 2. Leitmotif in cinema

The term "leitmotif" was first applied to music and it seems that it was coined by F. W. Jähns in his *Carl Maria Von Weber in seinenWerken* (1871). It is defined by the *Grove's Dictionary of Music*as" a theme, or other coherent idea, clearly defined so as to retain its identity if modified on subsequent appearances, and whose purpose is to represent or symbolise a person, object, place, idea, state of mind, supernatural force or any other ingredient in a dramatic work, usually operatic but also vocal, choral or instrumental". This use in music was quickly adapted for film, and as early as 1931 there is musical leitmotif in Fritz Lang's M (1931). In this film the leitmotif is presented at the very beginning in the title sequence, when the letter "M" covers the screen. The music we hear is a fragment of Edward Grieg's *Peer Gynt*. The same tune is whistled by the murderer, and it is the only clue we are given for his identification since we never see his face, but only his back or his shadow. This example is interesting in our case since the mysterious M is finally identified by a blind balloon-seller, who cannot see but can hear; hence identification has been achieved by music.

Leitmotifs are intended and their function is to provide extra semiotic information (Díez 2009). They can serve as a replacement for a visual sign or a highlighting of the visual sign in order to avoid repetition, as a mnemonic marker, or as a frame in which to construct the plot. In this article we shall focus on visual leitmotifs such as that employed by Woody Allen in his film *Whatever Works* (Allen 2009), where each episode --of the development of the story-- is recounted by Boris Yelnikoff (Larry David) to his friends in the same cafe.

Leitmotifs, even though they are granted an independent rhetorical status (MarcheseandForradillas, 2000:239) are metaphors, and often can also be classified as a type of metaphor such as metonymy, allegory or synecdoche (Whittock 1990). The analysis of metaphors in cinema and its reception and the way I which visual metaphors can be audiodescribedare beyond the scope of this article as they deserve a separate study.

Looking at the many functions associated to leitmotifs, Constantini (2009) offers a taxonomy of the main ways in which leitmotifs are used, suggesting that "it is possible to guess which is more appropriate to each particular case" following three general groups.

• **Description**: What happens to the character? Does the leitmotif emphasize a trait?

This category can be illustrated with an example from the film *Up* (Docter 2009) wherethe main character Carl Fredricksen is a 78-year-old balloon salesman. Carl's dream has been to wander the wilds of South America, and opts for travelling there tying thousands of balloons to his house and flying away. Russell -eight-year-old wilderness explorer- joins Carl's once-in-a-lifetime journey. Through the film many narrative elements are used to build up the characters, and the top of a soft drink bottle (see Fig.1) is one of them, which is used in this case to represent bravery. More specifically, this home made badge is associated with one character, Ellie (Figure 2), Carl's wife, whose energy and imagination is the driving force behind the couple. Carl, in the development of the film is an old grumpy man whose characterization in a formal suit clashes with the soda badge he always wears on his lapel (Figure 3). The film ends with Russell's Senior Explorer promotion ceremony. Since Russell's father is not present, Carl takes over and proudly presents Russell with his final badge: the grape soda top that Ellie gave him when they first met (Figure 4).



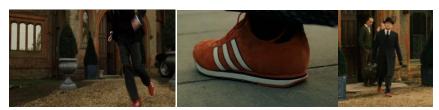
Figures 1, 2, 3 and 4. Top of grape soda bottle, young Ellie, Carl, and Russell wearing a badge.

As we can see in the frames, one item plays a small but recurrent role throughout the film, coming to the fore at the end; when it becomes a key element in the resolution of the story, it generates meaning and results in a highlight of emotion.

• **Indication:** Used to mark or give away information, for example whothe killer is.

An example from the film *Penelope* (Palansky 2008) illustrates this second function. The film is about a young girl who has to break a family curse. For this she must find true love and realize the most important life lesson, "I like myself the way I am." Penelope Wilhern lives hidden away in her family's estate. The girl meets a string of suitors but each eligible bachelor is in lovewith Penelope because of hersizeable dowry until her curse is revealed.

At the beginning of the film the butler (Figure 5) is given a pair of red trainers (Figure 6) to enable him to run faster when chasing Penelope's pretenders. Towards the end of the film – when the curse has been broken – the butler leaves Penelope's house, and walks out wearing the red trainers (Figure 7). The next scene, which is the resolution of the story – is the transformation of the butler into a witch, who is identified through the red trainers now worn on the witch's feet. The witch/butler is the same character who cast the spell at the beginning of the film (Figure 8).



Figures 5, 6 and 7. The butler sporting the red trainers



Figure 8. The butler/witch character

• **Replacement**: This works as a metonomy. These leitmotifs replace the elements they are linked to.

The last function can be illustrated with an example taken from the film *The Pursuit of Happyness* (Muccino 2006). The film is based on a true story about Christopher Gardner, who invested his money in a device which does not sell very well. At the same time his wife leaves him,he loses his house, his bank account and credit cards. Forced to live out in the streets with his son, Gardner goes through some training before he takes on a job as a stockbroker. During the film Chris Gardner's son is emotionally and physically attached to his action man toy, which offers him security. He clutches it throughout the film as can be seen in the many frames in figure 9.



Figure 9. Christopher Gardner's son clutching his action man

Towards the end of the film, Chris Gardner has lost everything and jumps on a bus with his son, but in the struggle to get on the bus the toy is lost and lies on the tarmac. Now both father and son have lost everything.

We have seen leitmotif functions through examples, but leitmotifs can also be part of the film language (Monaco 1997) and they may have various connections with the sign they represent (Constantini 2009). This sign can be a character, an object or a situation.

- Character: Offers clues on the possible development of the character, or as a mnemonic marker, as discussed with the soda top in the film Up.
- **Object**: In this case it works as a metaphor or metonomy; the object represents and evokes something else, which was illustrated by the action man toy in *The Pursuit of Happyness*.
- **Situation**: This is, according to Constantini, related to those genre-related elements, using the example of action films where all chases have a theme, or in a romantic comedy where lovers have their love song. Also applicable in the case of the menacing music in *Jaws* (Spielberg 1975) which marks and indicates each time the shark is going to attack, creating, through analepsis, the tension and the consequent emotion: fear.

To examine all of these functions, alongside the various ways in which leitmotifs can be received, we put forward the following chart (Constantini*ibid*), as a useful analytical tool which can profitably be used when deciding the most appropriate AD strategy.

Type	Link	Function
Musical	Character	Description
Sound	Object	Replacement
Audio/visual	Situation	Indication

Chart 1: Leitmotif type and functions

## 3. Leitmotif in AD

When faced with a leitmotif, what audio description strategy should be used? Should the audio-describeremphasizeit—through explicitation - in order to highlight its existence and hence create a tag which will help to mark it in the semiotic system of the film? This strategy could be labelledas "anchoring" and the main purpose is to call attention to itself, and provide a clue — which will act as a tag or marker -- in order to ease retrieving the referenceand act as a memory triggering device.

By contrast, the absence of the highlight, or anchoring, may result in redundancy of information at one extreme, or may result in the resolution of the film going unnoticed. We can see this case in the example from Coixet'sfilm *Elegy* (2008) whereDavid Kepesh (Ben Kingsley) is a university professor and art critic, obsessed with physical female beauty. After a life of seducing students, he falls in love for the first time with Consuela (Penelope Cruz). Their first meeting outside the university is atKepesh's party where he shows her a book of some of Goya's paintings; stopping at *Majadesnuda*(Figure 10) with the comment "she is perfection". During the AD of the film no mention or special comment is made of this scene, though the recurring theme in the film is the professor's lifelong pursuit of beauty in young students; while he avoids developing feelings for them.

Towards the end of the film, when Penelope Cruz visits Ben Kingsley's house to have a picture of her taken, she poses as we can see in Figure 11 below.



Figure 10. Goya's Majadesnuda. Figure 11. Penelope Cruz in Coixet's Elegy

The Spanish AD in the commercially available DVD does not mention the pose of Goya's painting at the beginning of the film. Towards the end of the film the pose adopted by Penelope Cruz, or the implied meaning and suggestion offered by the portrait on display, are not audio described. This is a case where a leitmotif has not been explicitly indicated, no meaning or visual image was "anchored" and later on the user is not able to recover neither the reference nor the description. The theme of beauty is lost.

At the other end of the previous AD strategy of omission, we find the AD offered in the English DVD version of Danny Boyle's film *Millions* (2004). In the film opening the logo of the production and distribution company Pathé, can be seen (Figure 12) below.



Figure 12. Pathé logo where the cockerel is with (left) and without halo (right)

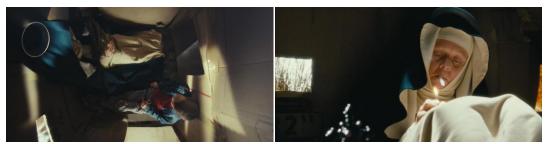
In the case of *Millions* the cockerel has a halo – see the first frame – while the standard Pathélogo is the second frame: a cockerel without a halo. In this DVD the case is more salient since, on playing the DVD, first we get the Pathélogo without halo, then we are shown the menu, and then after choosing the settings for the film we get another Pathélogo, this time with halo. In an interval of two minutes we are exposed to a Pathélogo without and with halo, but this is only explicitly indicated in the AD. Hence those listening to the AD will notice that two identical descriptions have been offered in a short period of time, but they are different.

In contrast with the audio description of *Elegy*, in this case we are given the information of the Pathe logo as "A mobile shaped like two speech bubbles spins against a white background. In the bubbles yellow letters spell the name Pathe with an exclamation mark. The shadow of a chicken with a haloglides across the background".

While the standard AD of a Pathelogo, which is "A mobile shaped like two speech bubbles spins against a white background. In the bubbles yellow letters spell the name Pathé with an exclamation mark. The shadow of a chicken glides across the background".

This new information is highlighted by the use of the word "halo" which is rather unusual, and especially so ifrelated to an animal: a chicken. The attention of regular audio description users will be instantly captured since they are used to the standard AD: "A mobile shaped like two speech bubbles spins against a white background. In the bubbles yellow letters spell the name Pathé with an exclamation mark. The shadow of a chicken glides across the background". This audio description is the formula used in other Pathéproductions such as *Everything is Illuminated* (Schreiber2005) *and The Science of Sleep* (Gondry 2006).

If we are aware of the new, or different, element – the halo in this case – this acts as an anchoring reference. This reference is continued when we get to the next sequence where a halo appears again. This time the device is clearly marked both visually and in the AD, as can be seen in the two frames which form the sequence below:



Figures 13. Haloon Saint Claire

The audio-description of this sequence reads "Images like photos fall on to the screen showing Damian in his den with a lady dressed like a nun (Fig. 13). Halos also fall also onto the screen and one of them falls on top of the head of a lady who wears a nun's habit and sits facing Damian."

By now the reference "halo" has become a leitmotif, and since it was anchored it does not come as a surprise when the next saints which appear in the film, also have halos, as can be seen in the pictures below with St Peter and St Nicolas (Fig 14).



Fig. 14 St Peter and St Nicolas

*Millions* is the story of Damian, a 7-year-old whose mother has just died. Just days before the currency is switched to Euros a large sack of money falls literally from the sky and Damian finds it. This sets him, and his brother, on the adventure of a lifetime that leads them to realize that true wealth has nothing to do with money.

In thefollowingframe (Fig. 15), the leitmotif "halo" is used with two purposes. The first is to be funny and beatify the donkey, as it has been doing with all the saints in the film. It is the donkey who saves Damian, carrying the sacks of money from the School Nativity Play to his old house. The donkey has a leading role in the resolution of the film, and we get a hint of this from the halo. Towards the end of the film we also hear Damian asking Saint Nicholas if he has met "Saint Moreen of Liverpool", that is his mum.



Fig. 15. St Joseph pulls the donkey, both have a halo

## 3 – The experiment

We wanted to test how AD acts as an exogenous control of attention. Specifically, if "anchoring" a word would change the perception of the film. The hypothesis is that without AD audience would not toice the cockerel with the halo at the very beginning of the film, while the film AD version clearly points at this element (see Figure 12). An eye-tracker was used to test the differences in attention deployment between the AD and non-AD versions of the clip.

### Hypothesis

The hypothesis behind this experiment is very simple: most people will notice the halo on the cockerel when watching the film with AD, but we also wanted to test how many people noticed the halo cockerel when watching without AD.

### Apparatus

Tests were performed with a Tobii T60 eye tracker with 60 Hz sampling rate in a  $1280 \times 1024$  display. The recording had 0.5 accuracy, about  $10 \times 10$  pixels at 50 cm distance from the observer.

#### Procedure

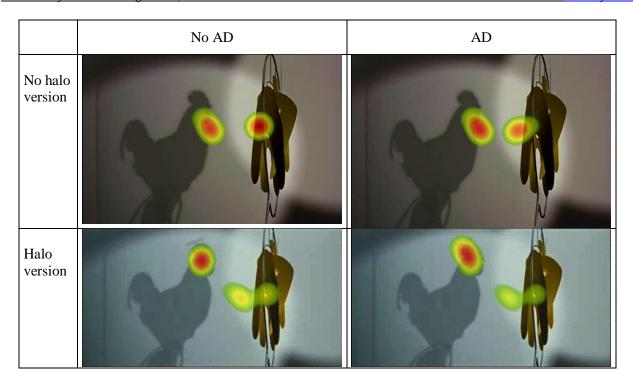
The experiment was carried out with eight sighted volunteers who took part in the test individually. They sat in front of the eye tracking display and were asked to adopt a comfortable position. Participants were informed that they will see two similar videos, ans asked to watch them as if they were in home". A group of four people saw the AD version of two different clips: one with halo and one with no halo. These two clips were presented again to four different participants but this time, with no AD. This combination of AD/no AD and halo/no halo created four different experimental conditions. The presentation order of the clips was counterbalanced. At the end of the test, participants were asked about differences between the two clips.

#### Results

Eye-tracking data from the clips were analysed. The selected data comes from three one-second fragments when the audio description mentions the halo. The same period was analysed for all the clips. This fragment is shown at the final part of the clip, when the cockerel is moving towards the centre of the screen.

The heatmaps below represent the fixation duration for the four experimental conditions. The left column represents how the four participants look at the two versions of the clip without AD. The right column is for the four participants that watched the clips with AD. Colors in the heat map represent the duration of the fixation. In all cases, red colour means 0.55 seconds fixation.

As can be observed, participant's fixations tend to point to two main locations: the face of the cockerel and the centre of the logo. However, data shows that AD has an effect on the deployment of attention. This effect becomes evident in the halo and AD version since it's the only condition where the halo is perceived. It can be seen that the halo area has a bigger fixation, growing from the cockerel's face. In contrast, it seems that AD has no effect on the "No halo version", since the heatmaps are quite similar.



When we asked participants for the differences between the clips, only the group watching with AD mentioned the halo. Of the rest of the participants, none noticed it. Since they had been specifically asked, participants issued statements such as: there are extra shadows in one of the clips shown, or the shape of the chicken is different, but no comment was related to the existence of a halo.

## 4- Conclusion

Audio description guidelines seem to be elusive when dealing with films in general, genres in particular, and only applicable when looking at particular films: but no two films are the same. More detailed information should be offered in the guidelines to help the audio describer decide on strategies to draft the script. As we have seen in the article, and through the experiment, attention is controlled when the description focuses on a particular filmic element – or rhetorical figure. For this reason a general recommendation for "anchoring" recurrent elements, asleitmotifs, should be taken into consideration and further tests should be conducted testing issues such as: memory, semantic retrieval and the much discussed strategy of describing the cause or the effect.

Use of common sense is the approach when drafting audio descriptions, but as with any work based on creativity and personal choicesome guidelines should be drafted pointing at possible drafting strategies, and explaining the outcome from their use. Translation and audio description have been compared in the past (Benecke 2009) and in both cases the semiotic transformation is a complex process where the professional has to weigh up possible decisions. The article intended to raise awareness for the rhetorical device of leitmotif and its possible implications for the reception of audio description.

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