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Adverbs as markers of women's objectification events in audio descriptions of English feature films

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Abstract

Audio descriptions are soundtracks added to (audio)visual products, e.g. movies, to make them accessible to blind or visually impaired persons. This paper focuses on adverbs as markers of women's objectification events in the audio descriptions of English feature films. It presents a textometric analysis of the English AD scripts of 488 movies which are part of MAD-v2 (Movies Audio Description), a dataset we enriched with additional metadata. Objectification applies to visual events in which people are cognitively reduced to their parts akin to objects and in which their agency (i.e. their capacity to act) is reduced. The identification of such events can be subject to interpretation. We expect that adverbs, in particular affective adverbs like “lasciviously”, are used by the audio describers to depict such scenes. Our results reveal quantitative differences between film genres, gender of the film directors, and years of film release with respect to the use of items tagged as adverbs in the MAD-v2 dataset. Our qualitative analysis of the movie with the highest adverb proportion informs in a nuanced way on the role played by adverbs to refer to objectification events.

Keywords: audio description, objectification, agency, adverb, feature film, English

1. Introduction

An audio description (AD) translates (audio)visual contents, e.g. feature films, into text, in order to make them accessible to blind or visually impaired persons. In Schaeffer-Lacroix (2022), we analyse the extent to which the AD script authors of a German TV show use adverbs to interpret visual events. Our paper builds on the results of this previous study to analyse the English AD scripts of the 488 movies which are part of MAD-v2 (Movies Audio Description) (Soldan 2023; Han et al., 2023). According to Bernard et al. (2018, p. 83), objectification applies to (audio)visual events in which people are cognitively reduced to their parts akin to objects or in which their agency, defined as “capacity to act”, is reduced. It happens that the identification of such events is subject to interpretation of scenes with subtle yet tangible elements beyond cases of explicit mental or sexual offense. In our study, we use textometric data analysis to retrieve women's objectification events in AD scripts. Pincemin and Heiden (2008) define textometry as a technique which enables the “generation of the synthetic and visual maps of words and texts as they are related or opposed to each other within a corpus.” We mainly study the specificity score of adverbs, which indicates the probability that they occur in one rather than another of our MAD-v2 subcorpora (see section 6.11 of the user manual [Manuel de TXM version 0.8](#)).

2. Theoretical framework

2.1. Objectification

Objectification is a concept associated with the exercise of power (Crone et al., 2021). It describes the unequal way in which people are treated in certain kinds of human relations. Crone et al. (2021)

explain that this treatment can apply to all genders, e.g. at workplaces: “Objectification is a form of dehumanization (...) which is expressed through a relationship of subjugation or a reductive perception of a person based on one of their attributes (...). It occurs when the person is viewed as an object.” Crone et al.’s study (2021) mentions a similarity between the workplace objectification and sexual objectification. The latter refers to situations where, according to Fredrickson and Roberts (1997, p. 175), especially women are “reduced to the status of mere instruments” and where they are “treated as bodies—and in particular, as bodies that exist for the use and pleasure of others.” In addition, “objectification theory posits that girls and women are typically acculturated to internalize an observer's perspective as a primary view of their physical selves.” (Fredrickson & Roberts, 1997, p. 175) Our paper focuses on this second objectification type.

2.2. Audio description

Audio descriptions, intended for a blind or visually impaired audience, are audio tracks added to (audio)visual artefacts, e.g. movies. Mazur (2020, p. 227) defines this multimodal genre as “an audio commentary that describes the relevant visual elements of a work (as well as meaningful sounds that may not be clear to the target audience), so that the work constitutes a coherent whole for the audience.” The AD files are recorded with the help of AD scripts ideally created by teams of non-blind and visually impaired authors (Natalie et al., 2021). Full AD scripts contain stage directions for the voice talent¹, like “(SPEECH)” for the film dialogue, “(DESCRIPTION)” for the part to be recorded, and information on non-verbal events which must not be overlapped by AD text, e.g. “[MUSIC PLAYING]”, as illustrated in this AD sample²:

Sample 1

(SPEECH)

(...) going to the mountains is going home, (...) wilderness is a necessity.

[MUSIC PLAYING]

(DESCRIPTION)

Huge snowy mountains. A stream tumbles between ferns and mossy rocks.

The MAD-v2 corpus only contains the description part of the AD scripts. According to Salway (2007), audio descriptions provide information on the characters’ appearances, interpersonal interactions, and their emotional states, which can be expressed by phrases containing an adverb (Salway, 2007). As a matter of fact, the authors of AD scripts must make decisions about how to verbally present objectification events to persons with vision impairment or low vision. This can lead to results like in this MAD-v2 sample stemming from the movie *12 Years a Slave* (directed by Steve McQueen, United States, United Kingdom, 2013): “At the center of the circle, Patsy dances prettily. Epps's face takes on a lustful gaze.”

2.3. Adverbs

Hallonsten Halling (2018, p. 22) defines adverbs as “items that provide ‘modification by a property’”, and she explains that “prototypical adverbs modify predicates.” Within the framework

¹ The voice talent is the person whose voice is used to record the AD audio track.

² *Words of Wilderness: 1836 – Present*, written by Pete McBride in 2014 (website of the company [3Play Media](#)).

of linguistic typology, their semantic classification is recommended (Geuder, 2019), e.g. by using concepts like time, space, manner, evaluation, judgement, emotion, or affect. According to a study of audio description scripts of a German TV show, adverbs mainly provide a temporal and spatial framework, but they also depict facial expressions and emotions (Schaeffer-Lacroix 2022, p. 63). The emotion concept is subordinate to the broader concept “affect”³. This is why our study seeks to understand the role of adverbs in general and of affective adverbs in particular as potential markers of women's objectification events cited in our AD script dataset.

3. Dataset

The dataset used for this study, MAD-v2 (Soldan, 2023; Han et al., 2023), contains 3,785,152 tokens (this count includes all lexical forms and punctuation marks). It comprises the English AD scripts of 488 feature films produced in various countries (most of them in the USA⁴) between 1936 and 2019 by 354 male film directors and 26 female film directors⁵. One of the columns of the provided file contains the AD scripts and the film credits, all data split into sentences. The other columns present the identification number of each film, the start and the end moment of the ADs, a code for the speaker, and the speech type label “ad”. We exported these data into XML files (one per movie), and we created an XML metadata file containing the provided (meta)data as well as additional metadata stemming from the [IMDb](#) (Internet movie database), amongst them the film titles, the film genres, and the years of movie release (see Sample 2).

Sample 2

```
<?xml version="1.0" encoding="UTF-8"?>
<text id="2928" imdb-id="tt6495770" title="Action Point" rating="5.1" year="2018"
  genres="Comedy"
  countries="United States | South Africa"
  languages="English"
  directors="Tim Kirkby" (...)><body>
  <p start="4.3004375" end="7.741857311320755" speaker="18.0">
  Stars fly down from the sky and skim across the river-smooth surface of a lake.
```

4. Research question and hypotheses

The following research question is treated in this paper: To which extent does the use of adverbs by audio description authors inform on events in the feature films of the MAD-v2 dataset that can be rated as women's objectification? These are our hypotheses:

- H1: The specificity score of adverbs in AD scripts of feature films provides evidence for the degree of presence of women's objectification events in these films.

³ Definition of "affect" in the [APA Dictionary of Psychology](#): “any experience of feeling or emotion, ranging from suffering to elation, from the simplest to the most complex sensations of feeling, and from the most normal to the most pathological emotional reactions.”

⁴ 1,743,254 tokens out of 3,785,152 correspond to data collected for movies labelled with the single keyword "USA".

⁵ Some of the film directors directed more than one movie, and some of the movies are conducted by several directors.

- H2: Movies directed by women contain fewer women's objectification events and thus a lower specificity score of adverbs than movies directed by men.
- H3: More recent feature films contain fewer women's objectification events and thus a lower specificity score of adverbs than older feature films.
- H4: Affective adverbs are used to audio describe filmic events which need interpretation, amongst them women's objectification events.

5. Research method

The XML files containing the MAD-v2 data and the corresponding metadata file were uploaded to the textometric analysis tool suite TXM (Heiden, 2010) and automatically annotated on the part-of-speech level with the help of the English TreeTagger. We then created subcorpora for selected metadata: film genres, film titles, gender of the film directors, and years of release. This approach is motivated by the results of Ramakrishna et al. (2017, p. 1676), which “report female characters to have a more prominent presence in horror movies, particularly as victims of violent scenes” and which inform on differences concerning gender ratios: “movies with female writers and directors in the production team are observed to have balanced gender ratios in characters compared to male writers/directors.” (Ramakrishna et al. 2017, p. 1676) We calculated the specificity score of adverbs in the different film genre subcorpora, in the year of release subcorpus, and the film director gender subcorpus. We then proceeded to a qualitative analysis of *Hard Candy*, the feature film with the highest specificity score of adverbs. To do this, we closely read and annotated its AD script and we then watched this movie. To classify the adverbs retrieved in the MAD-v2 dataset, we used the “arousal” category (Zhang et al., 2020), which denotes the degree of intensity of affective states (low, intermediate, high). This concept is also mentioned in a study on linguistic differences in the portrayal of movie characters (Ramakrishna et al., 2017). According to Hitlin and Elder (2007), the objectification feature “identity agency” refers to “the capacity to act within socially prescribed role expectations”, and Vanwesenbeeck et al. (2021) inform on “sexual agency.” We decided to study in our data the use of affective adverbs and of other adverbs to which the labels low, intermediate, or high agency can be applied (see section 6.2.1.).

6. Data analysis

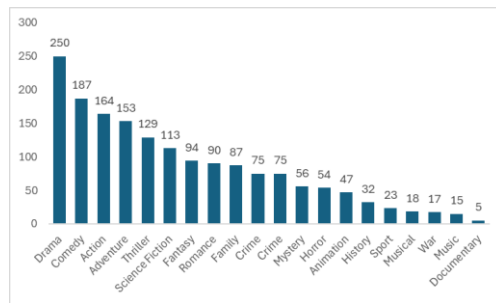
6.1. Quantitative analysis of MAD-v2

With the help of TXM, we identified the specificity score of adverbs in the MAD-v2 corpus (tagged by the English TreeTagger with the label “RB”) in the following subcorpora: individual film genres, gender of the film director, and years of movie release. The higher the score in Table 1, Graph 1, and Table 2, the more significant the presence of adverbs in the subcorpus. The subcorpora “Family”, “Comedy” etc. contain the data of all movies to which IMDb assigns the keyword “Family”, “Comedy” etc. (only this one or this one in addition to other genre keywords). According to Table 1, the adverb scores of the different film genres vary significantly and consistently. This result provides evidence for our hypothesis H1: items tagged with the genre keywords “Family”, “Documentary”, or “Animation”, likely to contain few objectification events, contain a smaller proportion of adverbs than those tagged with the keywords “Horror”, “Thriller”, “Drama”, or “Romance”, more likely to contain such events.

Genre subcorpus	Specificity score
Family	-18.8
Comedy	-17.8
Documentary	-15.0
Animation	-15.2
Music	-3.4
Musical	-3.5
Adventure	-6.8
Action	-6
Crime	-5.7
Sport	-2.2
Fantasy	-1.5
Science fiction	-1.5
Biography	-1.3
History	1.2
War	1.2
Horror	4.0
Thriller	6.6
Drama	11.9
Mystery	12.0
Romance	16.0

Table 1: Adverbs in the film genre subcorpora.

The low adverb score for the film genre “comedy” and the difference between the scores obtained for “crime” and “mystery” in Table 1 are surprising; these results may be due to the fact that most of the items are tagged with several keywords and that overlapping does exist; in addition, some of the genre keywords are assigned more often than others: according to Graph 1, the label “Drama” applies to 250 out of 488 movies and “Documentary” to only 5 movies.

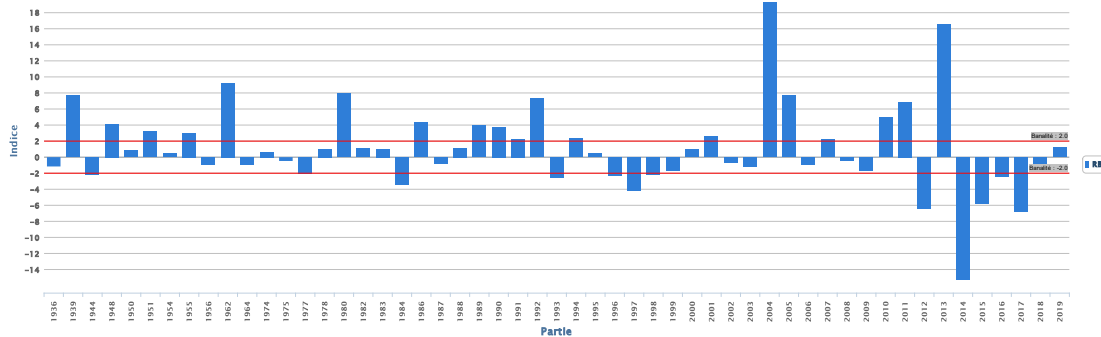


Graph 1: Distribution of the film genre keywords.

Gender of the film director	Specificity score
Female	-1.8
Male	2.1

Table 2: Adverbs in the film director gender subcorpora.

As can be seen in Table 2, the difference between the scores obtained for the films directed by women and those directed by men is slight, but coherent with regard to our hypothesis H2. The results obtained in the subcorpus in which the data are classified according to the years of movie release (1936-2019) signals a switch from mostly positive to mostly negative specificity scores of adverbs starting in 2012 and stabilising during the most recent period.



Graph2: Specificity score of adverbs in the years of release subcorpus (1936-2019).

To sum up, we can say that the results obtained in the quantitative analysis part of this study are compatible with our hypothesis H1 which states that feature films likely to contain a high proportion of objectification events are also likely to have high specificity scores for adverbs. H2 which concerns the role of the film director gender is not invalidated. We also found evidence for H3 by detecting a downward trend for the use of adverbs in the most recent period of film release.

6.2. Qualitative analysis of *Hard Candy*

For the sake of our qualitative analysis part, we identified the movies with the highest and the lowest specificity score of all adverbs in MAD-v2.

Title	Genre	IMDb summary	Year	Score
<i>Hard Candy</i>	Drama, thriller	“Hayley's a smart, charming teenage girl. Jeff's a handsome, smooth fashion photographer. (...). Jeff thinks it's his lucky night. He's in for a surprise.”	2005	17.69
<i>Hawking</i>	Biography, drama	“(…) the extraordinary story of the planet's most famous living scientist”	2004	17.69
<i>District 9</i>	Action, Science fiction, thriller	“(…) extraterrestrial race forced to live in slum-like conditions on Earth (...)”	2009	-16.26
<i>The next three days</i>	Action, crime, drama, romance, thriller	“A married couple's life is turned upside down when the wife is accused of a murder.”	2010	-24.81

Table3: Movies with the highest and the lowest specificity score of adverbs.

The AD scripts of *Hard Candy* (directed by David Slade, 2005, United States) and *Hawking* (directed by Philipp Martin, 2004, United Kingdom) obtain the highest specificity score (both 17.69). The two movies with the lowest scores were released in 2009 (*District 9*, directed by Neill Blomkamp, South Africa | United States | New Zealand | Canada, adverb score: -16.26) and 2010

(*The next three days*, directed by Paul Haggis, United States | France, adverb score: -24.81). In the following lines, we present the qualitative analysis of the AD script (size: 3,414 tokens) of *Hard Candy* and of its audiovisual counterpart. This feature film is tagged as “Drama” and “Thriller”. It focuses on two main characters: Jeff, a 32-year-old paedophile photographer, and Hayley, a 14-year-old girl wanting revenge for one of Jeff’s victims. This movie constantly blurs the lines by playing with stereotypical gender attitudes, e.g. assurance versus weakness, and with power relations, signalled through extreme close-ups, high-angle shots, and spatial positions (e.g. one of the characters looks up or down to the other one). Jeff and Hayley’s roles and identities are often switched, e.g. when Jeff is audio described like a beautiful woman or when Hayley wears Jeff’s glasses and his jacket to lecture him on paedophilia while he lies tied up on a table.

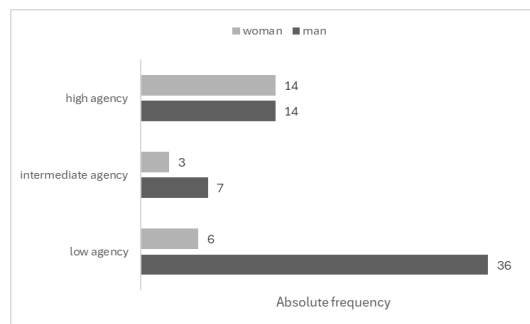
6.2.1. Agency types

We analysed the agency types of the events in which the actions of the two main characters are audio described. This analysis is mainly supported by the observation of the use of adverbs. We found evidence for low agency (motionless, helplessly), intermediate agency (slowly), and high agency (energetically, frantically).

Agency type	Man	Woman
low	“Jeff collapses heavily onto the floor.”	“Hayley is pinned painfully against the wall.”
intermediate	“He slowly pulls, and (...) the rope scrapes over his skin, and Jeff finally frees his left hand.”	“Hayley looks on, open mouthed.”
high	“Jeff kicks out hard at Hailey, sending her crashing into a table and down (...) on the floor.”	“from behind, she pushes him into the bath and runs a taser into his chest.”

Table 4: Samples for low, intermediate, and high agency.

We identified the same quantity of high agency events (14) for the male and the female character. However, Jeff mainly acts to defend himself, whereas Hayley mainly acts to attack. The frequency of low agency events increases during the movie; 36 out of 42 of them concern Jeff (see Graph 3).



Graph 3: Man's and woman's agency in *Hard Candy*.

6.2.2. Power relations

The high specificity score of adverbs in *Hard Candy* can partly be explained by the frequency of events which correspond to the concepts “look” or “posture” (Tores et al., 2024) which we interpret

as the expression of power relations (domination/submission). In the AD script of *Hard Candy*, they are rendered by gaze verbs (e.g. glance up, look down) and by posture verbs (e.g. stand up, bend over, turn away, sink), most of them, but not all, followed by a positional adverb⁶.

- Submission (faked⁷): “Jeff sinks to his knees and kisses the ground.”
- Submission: “She looks down bashfully before glancing back up at Jeff.”
- Domination: “She bends over and looks straight into Jeff’s eyes.”

In addition, we noticed that Hayley uses several artefacts which represent the detention of power (her scalpel, her taser, Jeff’s gun). Jeff gets hold of his gun only shortly, and in one of the scenes, he uses Hayley’s scalpel to free himself of his ropes.

6.2.3. Affective adverbs

Category	Man	Woman
low agency	bashfully, feebly, helplessly, weakly	bashfully, shyly
intermediate agency		calmly, serenely
high agency		defiantly, excitedly, frantically
affection		confidently, sweetly, painfully, nervously, coldly

Table 5: Affective adverbs in *Hard Candy*.

Table 5 contains the fifteen affective adverbs (16 occurrences) which appear in *Hard Candy*. This represents 0.54% out of all tokens of this subcorpus. The absolute frequency of the words on this list represents only 0.037% of the whole MAD-v2 dataset. Twelve out of these fifteen affective adverbs audio describe Hayley. The forms characterising Jeff all concern low agency events. No women’s objectification event is qualified by these adverbs, but some of them signal power relations (“weakly”, “defiantly”). Interestingly, in the AD script, the adverb “sweetly” applies to a gesture Hayley makes with her hands just before using them to do something cruel to Jeff.

6.2.4. Objectification events

The AD script of *Hard Candy* does not often explicitly mention women’s objectification events. One sample appears at the beginning of the film: “[Hayley’s] lip is covered in chocolate. Jeff wipes the lip with his thumb and tastes it.” Twice, Hayley shows herself topless to Jeff, the first time in the bathroom of a coffee shop (she then rather looks like a child than a Lolita), and the second time in his living room, where she dances (again like a child) on his sofa and undresses herself, inviting him to take photographs, what he is nearly unable to do because she drugged him with a drink just before. Besides, he asks her insistently to sit down during this shooting session. Another objectification event involves a model represented on one of the prints that decorate the living room: “Jeff stabs the knife into a print hanging on the wall. The blade repeatedly penetrating the crotch of a girl in a ballet pose.” Apart from the latter, the most explicit objectification events are

⁶ Schaeffer-Lacroix (2024) provides access to the dataset containing the whole adverb list of *Hard Candy*.

⁷ In the movie, one can see that in fact, Jeff kisses Hayley’s feet after she invites him to “worship” her.

not mentioned in the AD script: the camera points several times on the lower parts of the body of the very young girls represented on the living room prints. One of the scenes mentioned in the AD script represents the reversal of women's objectification: Hayley uses a video camera to film the lower part of Jeff's body, more precisely the result of the castration she applied to him just before.

7. Results and conclusions

The aim of this paper was to study, with the help of textometric analysis, the link between the use of adverbs and the existence of women's objectification events in AD scripts of feature films. The results obtained are consistent with our hypotheses H1, H2, and H3; above all, the high specificity score of the adverbs in MAD-v2 and the downward trend of adverbs in the most recent years of film release can be considered as part of the evidence for women's objectification events in English feature films. Our qualitative analysis, applied to *Hard Candy*, the movie with the highest specificity score of adverbs, does not provide significant evidence for H4 according to which affective adverbs are relevant markers of women's objectification events. Instead, we discovered that in AD scripts, positional adverbs, functioning as markers for different agency types, are central for audio describing toxic power relations. However, in the analysed film, the female character repeatedly objectifies the paedophile male character in order to make him feel what he is doing to young girls. We conclude that the study of objectification events must be highly contextualised to understand their function in feature films. In addition, the analysis of such events in AD scripts needs to be complemented by the thorough study of its audiovisual counterpart.

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