ADVERBS AS MARKERS OF WOMEN OBJECTIFICATION IN AUDIO DESCRIPTIONS OF ENGLISH FEATURE FILMS

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OUTLINE

- Research context

- Theoretical framework
  - Objectification
  - Audio description
  - Adverbs

- Dataset

- Research question

- Research method

- Quantitative analysis

- Qualitative analysis

- Results

- Conclusion

RESEARCH CONTEXT

Tractive (Towards a computational multimodal analysis of film discursive aesthetics)

- Project funded by ANR (French national research agency)

- Objective: characterise and quantify gender representation and women objectification in films and visual media, by designing an AI-driven multimodal (visual and textual) discourse analysis framework

- My task: analyse audio descriptions of feature films

OBJECTIFICATION

Nikko (flickr)

- A concept associated with the exercise of power*

- "Sexual objectification occurs whenever a woman's body, body parts, or sexual functions are separated out from her person, reduced to the status of mere instruments."**

- "When objectified, women are treated as bodies (…) that exist for the use and pleasure of others."**

- "Objectification theory posits that girls and women are typically acculturated to internalize an observer's perspective as a primary view of their physical selves."**

* Crone et al. (2021)

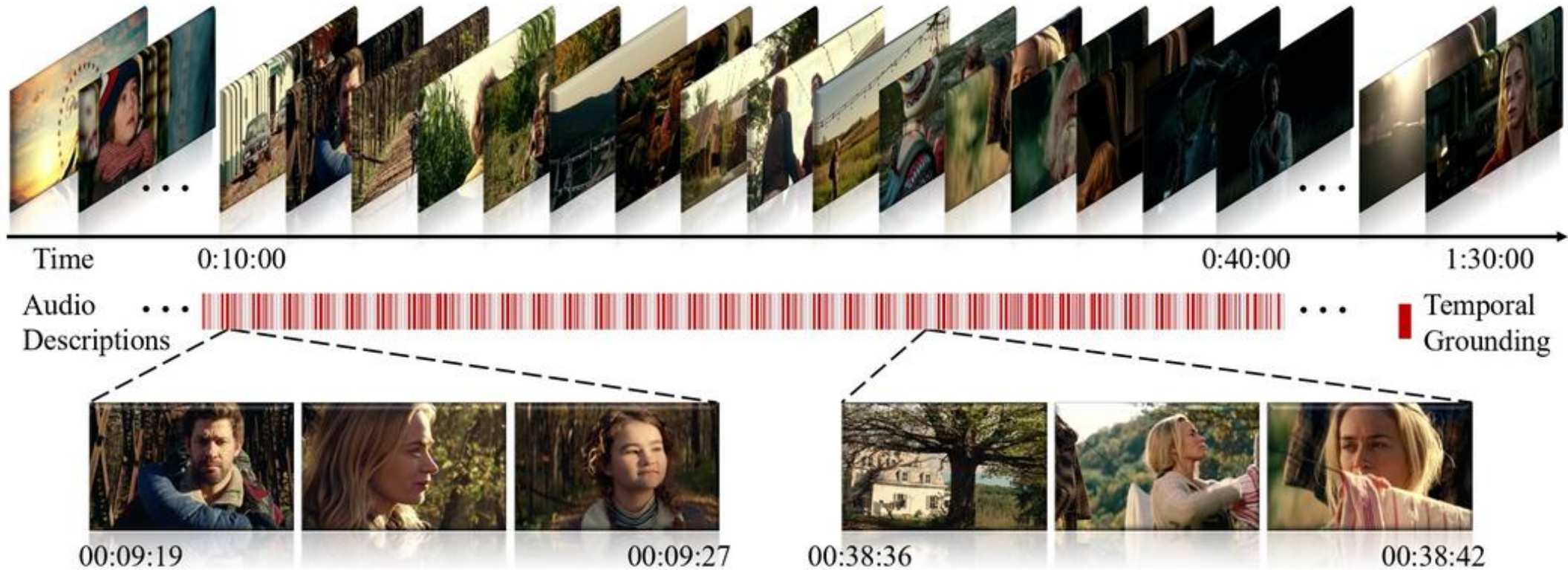** Fredrickson & Roberts (1997)

AUDIO DESCRIPTION (AD)

- Multimodal text genre
- Audio commentary for blind or visually impaired persons
- Describes relevant visual elements & meaningful sounds*

* Mazur (2020, p. 227)

AD SAMPLE

"Bearded dad is carrying his other sick son. Mum seems alone with her thoughts and the daughter is in complete silence."

"Mum hangs up the laundry outside the farmhouse."

Source: https://github.com/Soldelli/MAD

AD SCRIPT SAMPLE

(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.

*Words of Wilderness: 1836 – Present (*by Pete McBride, United States, 2014)

WHAT ADVERBS DO

- Provide modification of an element by a property*
- Produce a „floate-over-the-stage" effect

„l'idée d'un flottement au-dessus de la scène provoqué par la présence d'un adverbe" **

(DESCRIPTION)
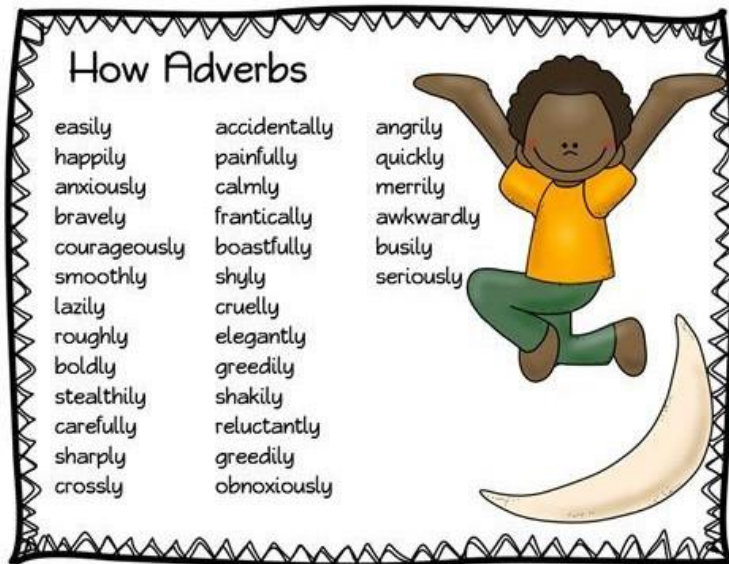At the center of the circle, Patsy dances prettily. Epps's face takes on a lustful gaze.***

*Hallonsten Halling (2018, p. 22)

** Larrory (2022, p. 169)

*** AD script of *12 Years a Slave* (by Steve McQueen, United States, United Kingdom, 2013) (MAD-v2)

ADVERBS IN AUDIO DESCRIPTIONS

How Adverbs

easily	accidentally	angrily
happily	painfully	quickly
anxiously	calmly	merrily
bravely	frantically	awkwardly
courageously	boastfully	busily
smoothly	shyly	seriously
lazily	cruelly	
roughly	elegantly	
boldly	greedily	
stealthily	shakily	
carefully	reluctantly	
sharply	greedily	
crossly	obnoxiously	

attanatta (flickr)

- Provide a temporal and spatial framework
- Depict facial expressions
- Inform about emotions

"She looks down bashfully before glancing back up at Jeff."*

* AD script of *Hard Candy* (David Slade, USA, 2005)

PREVIOUS RESULTS

- The use of affective adverbs in ADs helps to interpret ambiguous scenes, e. g. "stare lustfully" vs "stare in fascination".*

- Female characters have a more prominent presence in horror movies, particularly as victims of violent scenes.**

- Movies of female film directors have balanced gender ratios in characters compared to those of male film directors.**

* Schaeffer-Lacroix (2022, p. 63)

** Ramakrishna et al. (2017, p. 1676)

RESEARCH QUESTION

- To what extent does the use of adverbs in the MAD-v2 dataset inform on the degree of presence of events that can be rated as women objectification?
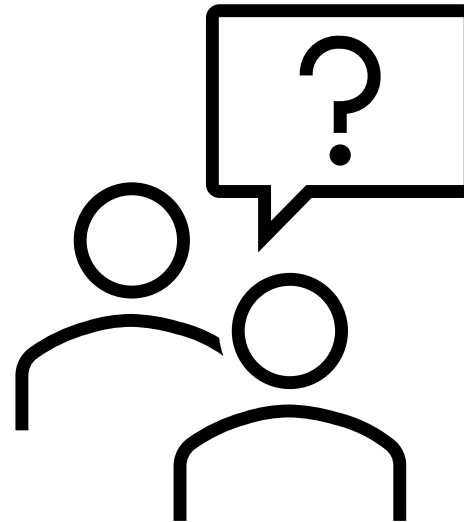
HYPOTHESES

- H1: The specificity score of adverbs in AD scripts of feature films provides evidence for the degree of presence of women objectification events in the MAD-v2 dataset.

- H2: Movies directed by women contain fewer women objectification events and therefore have a lower specificity score of adverbs than movies directed by men.

- H3: More recent feature films contain fewer women objectification events and therefore have 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 objectification events.

METHOD

- Quantitative analysis with TXM

  - Calculate the specificity score* of adverbs in several subcorpora of the Mad-v2 corpus

    "The Specificities command calculates a statistic indicating whether the occurrences of a word or a QL query appear in excess (or in short supply) (…) in a subcorpus compared to its parent corpus." **

- Qualitative analysis

  - Watch *Hard Candy*, the feature film with the highest specificity score of adverbs
  - Closely read and annotate its AD script

*Manuel TXM Version 0.7.9 | Section 8.11.1

** Pincemin (2023)

SPECIFICITY SCORE (TXM)

Manuel TXM Version 0.7.9 | Section 8.11.1

Afin d'analyser la spécificité d'apparition d'un événement textuel dans une partie d'un corpus plutôt qu'une autre, un événement étant défini comme l'apparition d'un mot ou d'une expression CQL quelconque, on peut progressivement estimer le nombre d'apparitions le plus vraisemblable de la manière suivante :

▪ Le décompte des occurrences de l'expression CQL (ou d'une forme graphique simple) dans chaque partie, soit la fréquence, permet de se faire une première idée contrastive entre les parties.

▪ Diviser cette fréquence par le nombre total d'occurrences se trouvant dans la partie considérée (ou dira aussi la taille de la partie) permet d'utiliser les « fréquences relatives » (comme dans le moteur Stella de la base de textes FRANTEXT par exemple). On a alors « normalisé » la fréquence ou encore on l'a pondérée indépendamment de la taille de chaque partie. Ce qui permet de comparer plus sereinement les fréquences entre elles.

AD SCRIPT DATASET MAD-V2

Name	MAD-v2 (Movie audio description)
Language	English
Size	3,785,152 tokens (includes lexical forms and punctuation marks)
Number of movies	488
Period	1936-2019
Film director gender	354 male, 26 female
Format	Sentences
Metadata	text ID, start moment, end moment, speaker code, speech type label

MAD: A Scalable Dataset for Language Grounding in Videos from Movie Audio Descriptions (Soldan, 2023)

PROVIDED MAD-V2 DATA FILE

A31	fx	Max looks disgusted.			

	A	B	C	D	E	F
1	text	start	end	speaker	speech_type	movie
2	In a black, star-sprinkled sky, we soar backward over Earth.	4,544819806	7,827137425	1	ad	10142
3	Massive block letters of gold and silver orbit into view.	8,447575512	11,24955397	1	ad	10142
4	The continents show the speckled electrified blow of hundreds of cities.	11,7699214	15,13229554	1	ad	10142
5	The Earth eclipses the sun, and a massive word hovers front and center.	15,87281842	19,81560239	1	ad	10142
6	Universal, a Comcast company.	20,31595568	22,23731234	1	ad	10142
7	In another logo, four children wave sparklers tracing out capital letters.	27,55313094	31,5739718	1	ad	10142
8	The letters hover over a grassy hill at twilight.	32,33413077	34,67462023	1	ad	10142
9	As the kids run past, the first one underlines the words, good universe.	35,39477083	39,61565353	1	ad	10142
10	The lid of a school desk closes.	44,03657806	45,59690437	1	ad	10142
11	An animated scene of carved sketches and scribbled words appears on the wooden surface.	46,21703405	50,35790002	1	ad	10142
12	words in the center read Point Grey.	51,01803807	53,21849824	1	ad	10142
13	In a boy's bedroom, a framed photo shows a baby in a swing.	55,61012177	58,83098757	1	ad	10142
14	A model airplane and other items sit nearby.	59,23109512	61,57172431	1	ad	10142

METADATA

Source: IMDb (Internet Movie Database)

```xml
<?xml version="1.0" encoding="UTF-8"?>
<text id="4772" imdb-id="tt0424136" title="Hard Candy" rating="7.0"  year="2005"
    genres="Drama | Thriller"
    countries="United States"
    languages="English"
    directors="David Slade"
    writers="Brian Nelson"
    actors="Patrick Wilson | Elliot Page | Sandra Oh | Odessa Rae | G.J. Echternkamp | Cori Bright"
    votes="166978">
<body>
    <p start="36.40904584756618" end="40.77276916097353" speaker="17.0">
        A blood-red cube intrudes on the image as it slides rigidly but methodically around.</p>
```

QUANTITATIVE ANALYSIS WITH THE TEXTOMETRY SOFTWARE TXM

- Upload XML files to TXM*;

- annotate the data with the English TreeTagger;

- create subcorpora (film genres, film titles, gender of the film directors, years of release);

- calculate the specificity score of adverbs in different subcorpora.

* Heiden (2010)

ADVERBS IN THE FILM GENRE SUBCORPUS

✓ H1

The specificity score of adverbs in AD scripts of feature films provides evidence for the degree of presence of women objectification events in the MAD-v2 dataset.

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

DISTRIBUTION OF THE FILM GENRE KEYWORDS

Total: 488 movies
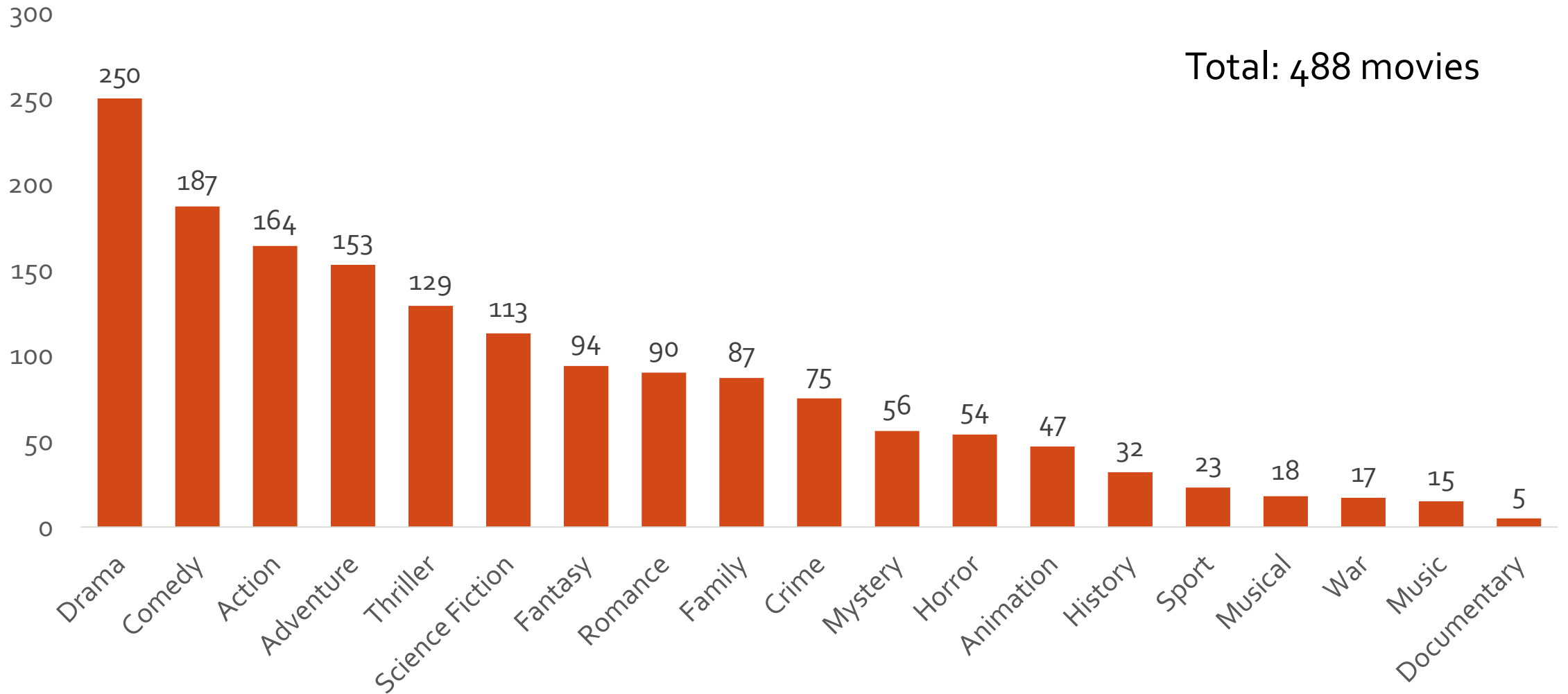
GENDER OF THE FILM DIRECTOR

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

✓ H$_2$

Movies directed by women have a lower specificity score of adverbs than movies directed by men (tbc: they contain fewer women objectification events).

YEARS OF RELEASE SUBCORPUS (1936-2019)
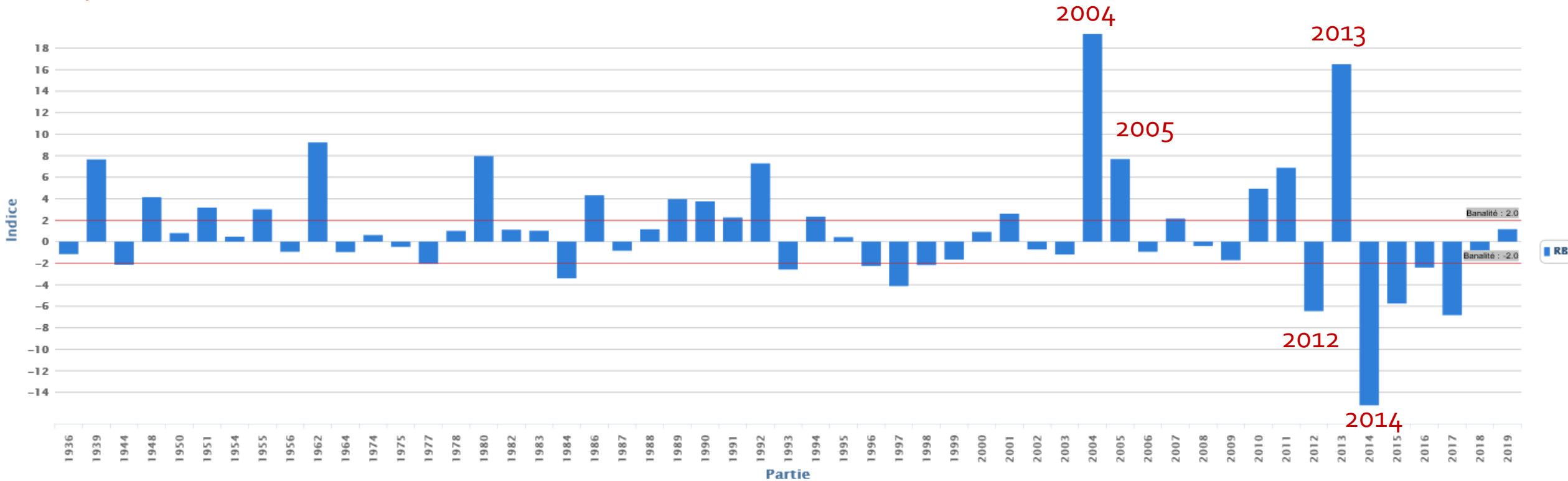
✓ H3

More recent feature films contain fewer women objectification events and therefore have a lower specificity score of adverbs than older feature films.

FILMS RELEASED IN 2004

Enduring Love, Drama | Mystery | Romance | Thriller

Girls Trip, Adventure | Comedy | Drama

London to Brighton, Crime | Drama | Thriller

Mr. 3000, Comedy | Drama | Romance | Sport

Patriots Day, Action | Crime | Drama | History | Thriller

Whiskey Tango Foxtrot, Biography | Comedy | Drama | War

Yesterday, Comedy | Fantasy | Music | Romance

Eternal Sunshine of the Spotless Mind, Drama | Romance | Sci-Fi

Shaun of the Dead, Comedy | Horror

The Day After Tomorrow, Action | Adventure | Sci-Fi | Thriller

EXTREME SPECIFICITY SCORES OF ADVERBS

Title	Genre	IMDb summary	Year	Score
Hard Candy (David Slade, USA)	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 2006: start of the *#MeToo* movement	17.69
The next three days (Paul Haggis, USA | France)	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

CATEGORIES USED FOR THE QUALITATIVE ANALYSIS

- Agency

  ➔ "Agency is the condition of activity rather than passivity. It refers to the experience of acting, doing things, making things happen, exerting power, being a subject of events, or controlling things. This is one aspect of human experience. The other aspect of human experience is to be acted upon, to be the object of events, to have things happen to oneself or in oneself, to be constrained and controlled: to lack agency."*

- Arousal: low, intermediate, high

  ➔ denotes the degree of intensity (of an affective state)**

*Hewson (2010)

** Zhang et al. (2020)

HARD CANDY

Jeff

a 32-year-old paedophile photographer

Hayley

a 14-year-old girl wanting revenge for one of Jeff's victims

Directed by David Slade, USA, 2005.

HARD CANDY & CERTIFICAT 16

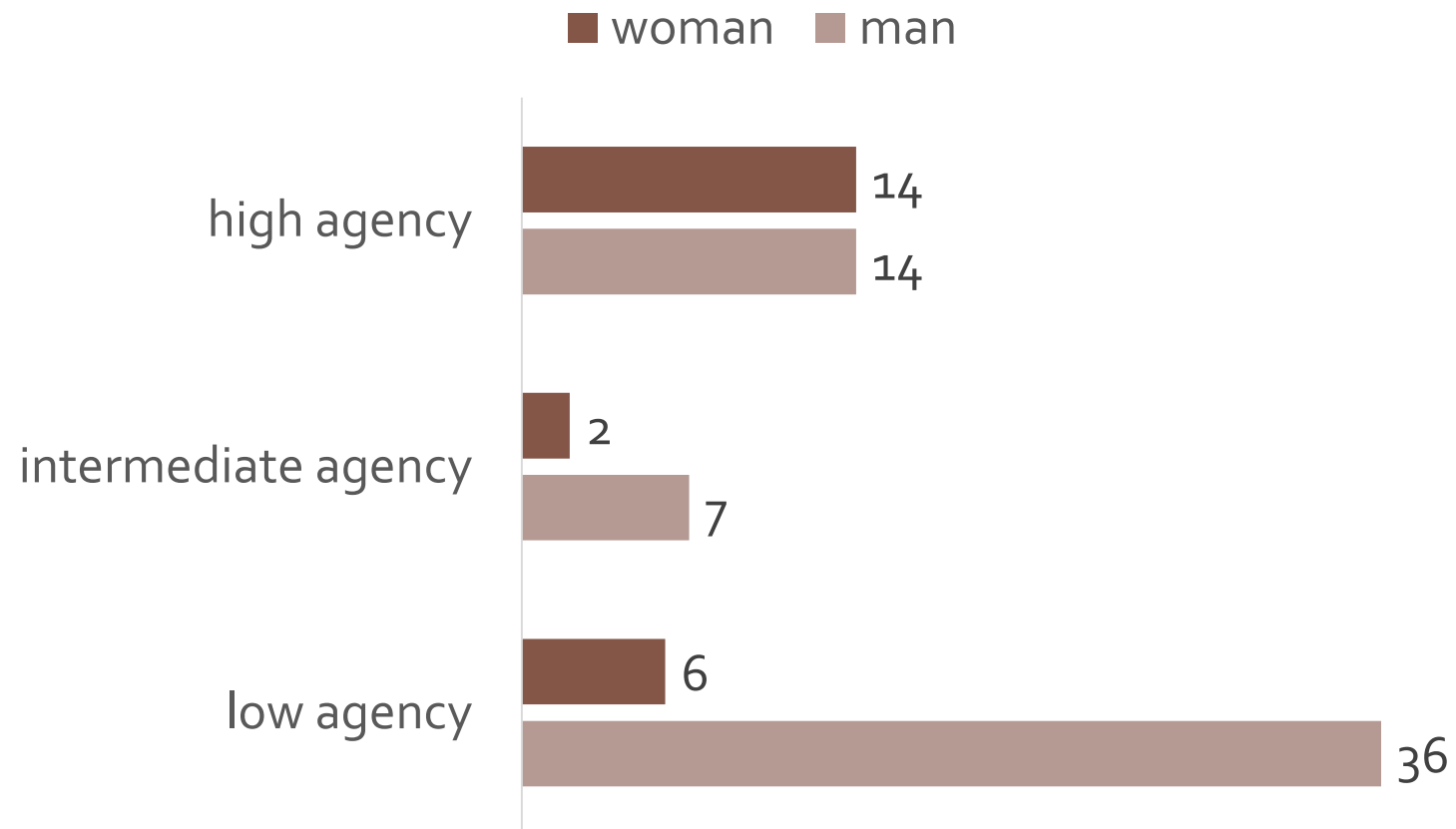## Évaluation du contenu

Classification des films (MPAA)
Rated R for disturbing violent and aberrant sexual content involving a teen, and for language

Scènes à caractère sexuel/nudité: Modéré

Violence et horreur: Modéré

Propos injurieux ou vulgaires: Modéré

Consommation d'alcool, de drogues et tabagisme: Faible

Scènes effrayantes et de grande intensité: Élevé

DEGREES OF AGENCY IN *HARD CANDY*

| degree of agency	man	woman
low	"he is tied so securely that his actions are completely futile."	"Hayley is pinned painfully against the wall."
intermediate	"Jeff crawls feebly on his stomach into the corridor."	"Hayley pauses nervously."
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."

ABSOLUTE FREQUENCY OF AGENCY EVENTS

■ woman ■ man

high agency — woman: 14, man: 14
intermediate agency — woman: 2, man: 7
low agency — woman: 6, man: 36

AFFECTIVE ADVERBS

category	man	woman
low agency	bashfully, feebly, weakly, helplessly	bashfully (2 times), shyly
intermediate agency		calmly
high agency		defiantly, excitedly, frantically
unclassified		confidently, sweetly, painfully, nervously, coldly

~~H4~~

~~Affective adverbs are used to audio describe filmic events which need interpretation, amongst them women objectification events.~~

POSITIONAL ADVERBS
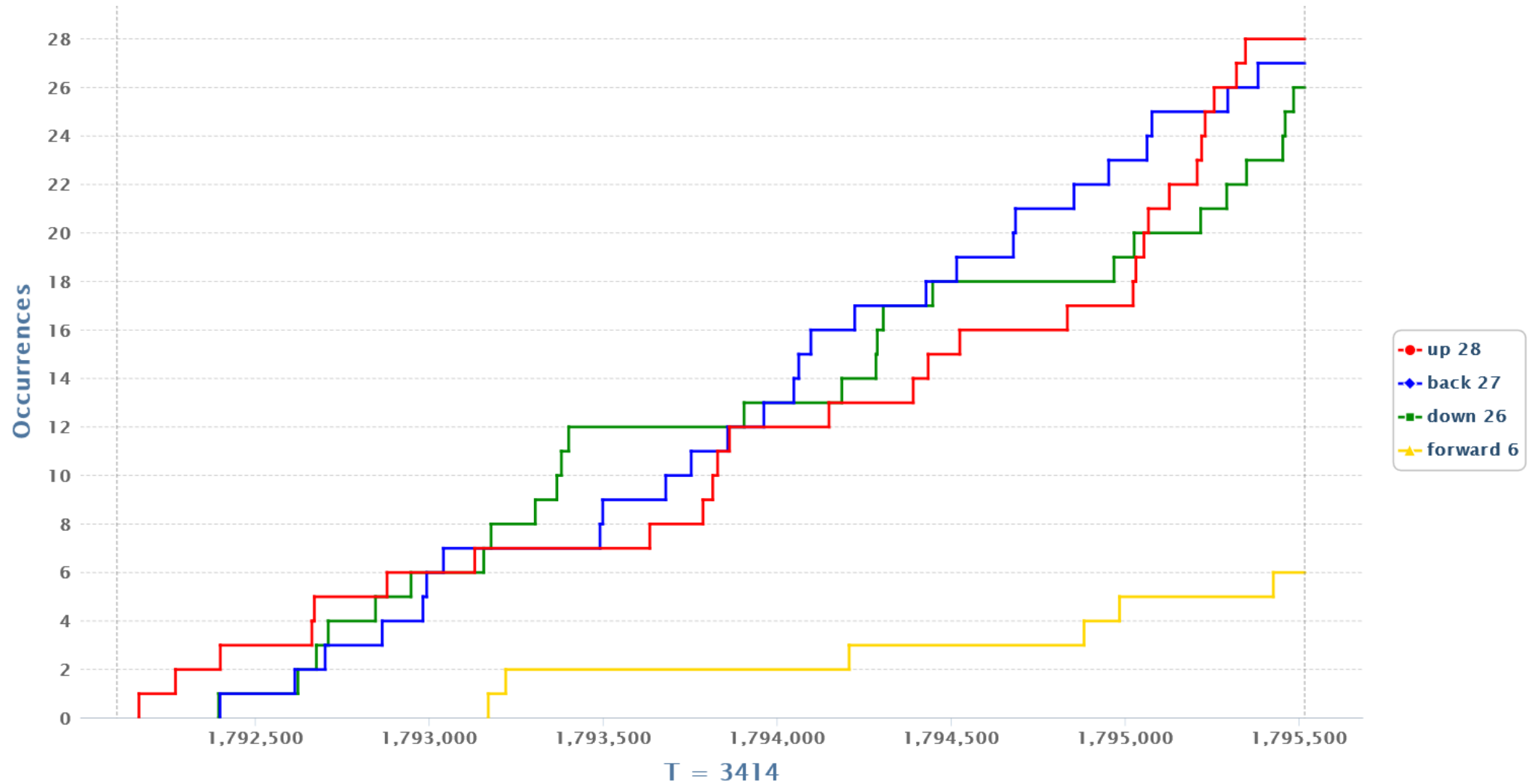
Incidental outcome: positional adverbs are used to mark power relations.

WOMEN OBJECTIFICATION IN *HARD CANDY*

In the coffee shop:

▪ "[Hayley's] lip is covered in chocolate. Jeff wipes the lip with his thumb and tastes it."

▪ In the bathroom, Hayley shows herself topless to Jeff.

In Jeff's living room:

▪ "She jumps onto the sofa and peels off her top as she begins to dance."

▪ "Jeff stabs the knife into a print hanging on the wall. The blade repeatedly penetrating the crotch of a girl in a ballet pose."

Not audio described:

▪ The camera points several times on the lower parts of the body of the very young girls represented on the prints in the living room.

SCÈNES À CARACTÈRE SEXUEL/NUDITÉ DANS *HARD CANDY*

MODÉRÉ 35 sur 84 a trouvé ceci modéré   Vote

There are many references to pedophilia and child molestation. A teenage girl constantly accuses a man of being a child molester, sometimes in graphic terms.

A teenage girl changes in front of an adult man and she is seen wearing nothing but a bra from the waist up.

An adult man has many large pictures of teenage girls in revealing outfits in his home.

A man is seen lying on a table nude from the waist down with a bag of ice on his genitals. The side of his bare buttocks and some pubic hair can be seen.

A teenage girl makes crude comments about an adult man's genitals.

Source:
IMDb (Internet movie data base)

RESULTS AND DISCUSSION

- H1, H2 and H3 are confirmed (film genre, film director gender, period).

- H4 is not confirmed (role of affective adverbs: not central).

- Positional adverbs (as well as prepositions and prepositional clauses) function as markers for different agency types: they audio describe power relations.

- Gender role switching: Jeff's "handsome face", Hayley's "boyish frame".

- Men objectification: Hayley films the result of the castration she applied to Jeff.

CONCLUSION

- There is a need to not only study the role of adverbs, but also the role of prepositions and prepositional clauses for audio describing objectification events.

- The study of objectification events must be highly contextualised (text, audiovisual counterpart) to understand their function in feature films.

ACKNOWLEDGEMENTS

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