



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

Prof. Dr. Eva Schaeffer-Lacroix  
Sorbonne Université  
Research group STIH  
(Sens Texte Informatique Histoire)  
Paris | France

# 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

(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

„a situation that (...) is constructed relatively freely (...) by the speaker. The quality attributed to this situation by the adverb (...) floates over the stage.“ [my translation]\*\*

(DESCRIPTION)

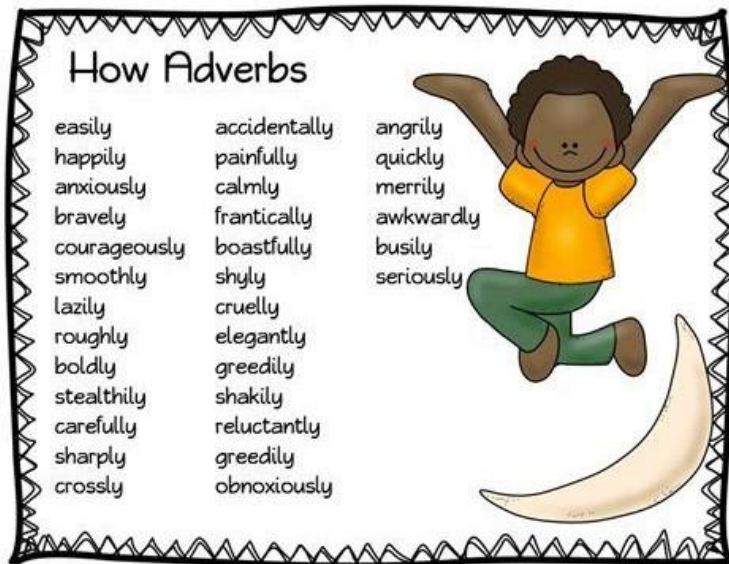
At the center of the circle, Patsy **dances prettily**. Epps's face **takes on a lustful gaze**.\*\*\*

\*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



[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

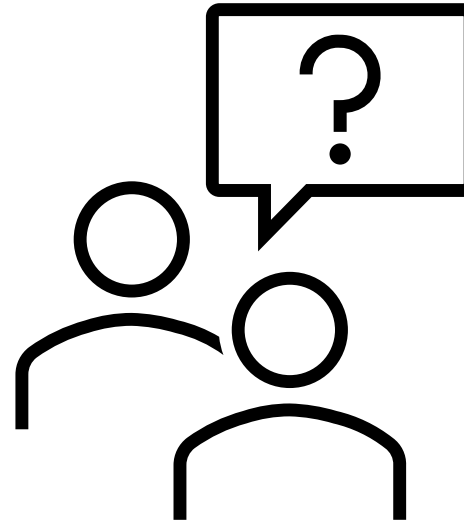
- The use of affective adverbs in ADs helps to interpret ambiguous scenes, e. g. “stare lustfully” vs “stare in fascination”.\*
- Female characters have a more prominent presence in horror movies, particularly as victims of violent scenes.\*\*
- Movies of female film directors have balanced gender ratios 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 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.” [my translation]\*\*

- Qualitative analysis

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

\*[Manuel de TXM version 0.8](#), section 6.11.

\*\* Pincemin (2023)

# AD SCRIPT DATASET

|                      |  |
|----------------------|--|
| Name                 | MAD-v2   |
| Language             | English  |
| Size                 | 3,785,152 tokens (all 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)

# METADATA

Source: [IMDb](#) (Internet Movie Database)

```
<?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. Echterkamp | 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              |

---



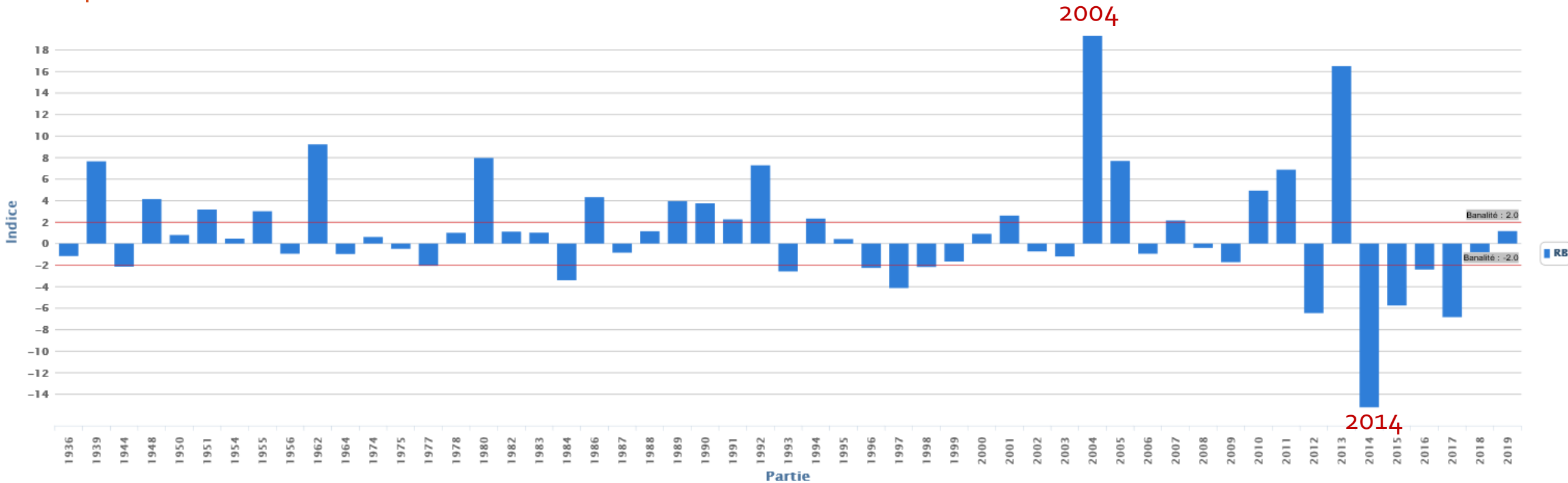
# GENDER OF THE FILM DIRECTOR

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

✓ H<sub>2</sub>

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)



✓ H<sub>3</sub>

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

# EXTREME SPECIFICITY SCORES OF ADVERBS

| Title  | Genre                                   | IMDb summary  | Year | Score  |
|--|---|---|------|--------|
| <b><i>Hard Candy</i></b><br>(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 | 17.69  |
| <b><i>The next three days</i></b><br>(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 |

2006: start of the #MeToo movement

# CATEGORIES USED FOR THE QUALITATIVE ANALYSIS

- Identity agency
  - “the capacity to act within socially prescribed role expectations”\*
- Arousal: low, intermediate, high
  - denotes the degree of intensity of an affective state\*\*

\* Hitlin & Elder (2007)

\*\* Zhang et al. (2020)

# *HARD CANDY*

Jeff

a 32-year-old  
paedophile  
photographer

Hayley

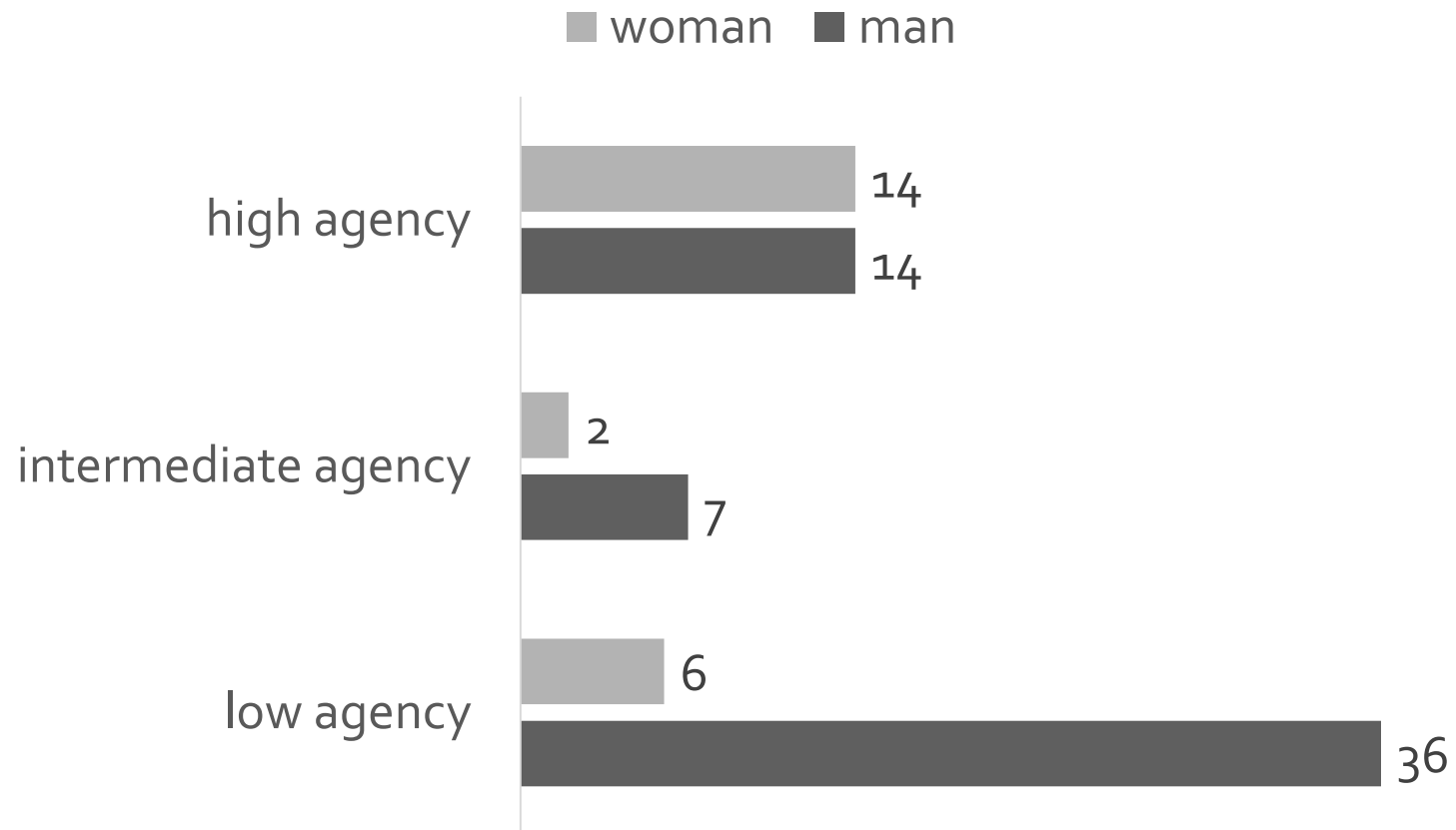
a 14-year-old girl  
wanting revenge for  
one of Jeff's victims

Directed by David Slade, USA, 2005.

# DEGREES OF AGENCY IN *HARD CANDY*

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



# AFFECTIVE ADVERBS

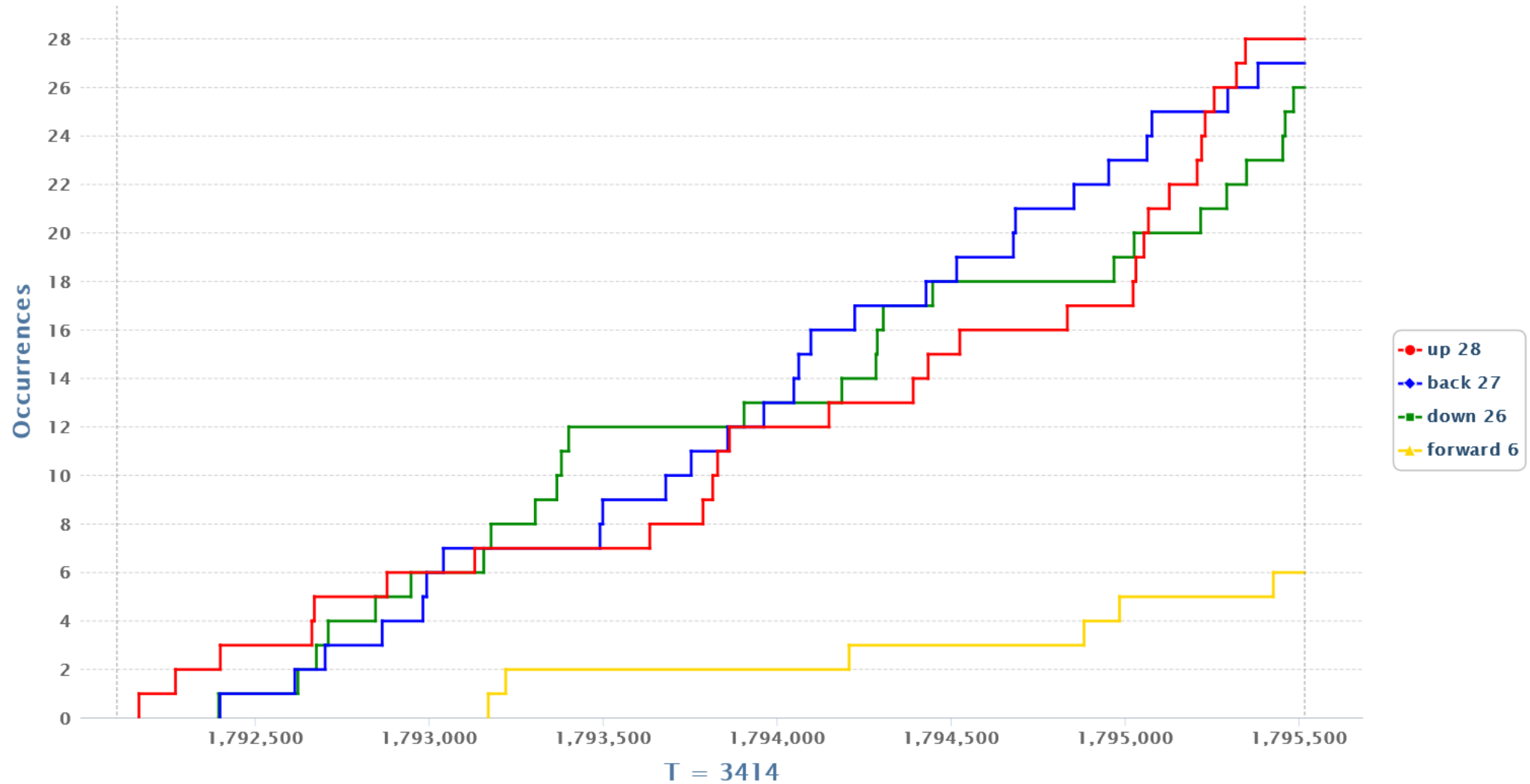
| category            | man                                   | woman  |
|---------------------|---------------------------------------|--|
| low agency          | bashfully, feebly, weakly, helplessly | bashfully (2 times), shyly                         |
| intermediate agency |                                       | 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.

# RESULTS AND DISCUSSION

- H<sub>1</sub>, H<sub>2</sub> and H<sub>3</sub> are confirmed (film genre, film director gender, period).
- H<sub>4</sub> 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".
- **Man 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.

# BIBLIOGRAPHY

- Crone L., Brunel L. and Auzoult, L. (2021). [Validation of a Perception of Objectification in the Workplace Short Scale \(POWS\)](#). *Frontiers in Psychology*, 12.
- Fredrickson B. L. & Roberts T.-A. (1997). [Objectification Theory: Toward Understanding Women's Lived Experiences and Mental Health Risks](#). *Psychology of Women Quarterly*, 21 (2), 173–206.
- Hallonsten Halling, P. (2018). [Adverbs: A typological study of a disputed category](#) (Thesis - Department of Linguistics, Stockholm University).
- Han T., Bain M., Nagrani A., Varol G., Xie W. and Zisserman, A. (2023). *AutoAD: Movie Description in Context*. 18930–18940. [OpenAccess](#)
- Heiden S. (2010). [The TXM Platform: Building Open-Source Textual Analysis Software Compatible with the TEI Encoding Scheme](#). In *Proceedings of the 24th Pacific Asia Conference on Language, Information and Computation*, Sendai, 389-398.
- Hitlin S. and Elder G. H. (2007). [Time, Self, and the Curiously Abstract Concept of Agency](#). *Sociological Theory*, 25 (2), 170–191.
- Larrory, A. (2022). "Seitenweise Sonderpreise" – Zu einigen *weise*-Adverbien im Deutschen. In Modicom P.-Y. (Ed.), *Adverbien und Adverbiale im Deutschen – Grenzen und Gliederung einer syntaktischen Kategorie im Deutschen*, Winter-Verlag, 161-177.
- Mazur I. (2020). [Audio Description: Concepts, Theories and Research Approaches](#). In Ł. Bogucki & M. Deckert (Eds.), *The Palgrave Handbook of Audiovisual Translation and Media Accessibility*, Springer International Publishing, 227–247.
- Pincemin, B. (2023). The Specificity Measure in Textometry: A Hermeneutic Use of the Fisher's Exact Test. *Untangling Associations. Advances in Collocation and Keyword Analysis.*, Sascha Diwersy, Praxiling UMR5267 CNRS, Université Paul Valéry Montpellier 3; Céline Poudat, Consortium Huma-Num CORLI (Corpus, langues et interactions), September 2023, Montpellier, France. [{halshs-04226867}](#)
- Ramakrishna A., Martínez V. R., Malandrakis N., Singla K. and Narayanan S. (2017). [Linguistic analysis of differences in portrayal of movie characters](#). In *Proceedings of the 55th Annual Meeting of the Association for Computational Linguistics (Volume 1: Long Papers)*, 1669–1678.
- Schaeffer-Lacroix E. (2022). Automatisch erkannte Adverbien und Adverbiale in deutschsprachigen Audiodeskriptionskripten. In Modicom P.-Y. (Ed.), *Adverbien und Adverbiale im Deutschen – Grenzen und Gliederung einer syntaktischen Kategorie im Deutschen*, Winter-Verlag, 49–65.
- Soldan M. (2021) 2023. [MAD: A Scalable Dataset for Language Grounding in Videos from Movie Audio Descriptions](#). Python.

# ACKNOWLEDGEMENTS

This research was partially financed by the project-based funding agency for research in France ANR (project ANR-21-CE38-0012).

Our warmest thanks go Marceau Hernandez, research assistant at the *Centre d'expérimentation en méthodes numériques pour les recherches en Sciences Humaines et Sociales* (CERES, Sorbonne Université), who created the XML files for our data.

I am also highly indebted to Lucile Sassatelli (Université Côte d'Azur) as well as to the experts, whose comments to a previous version helped improve this presentation.