

An investigation into the sound dramaturgy of movie trailers using loudness measurement and speech analysis

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Outline

1. Background Knowledge

- Movie Trailers
- Measurement Method

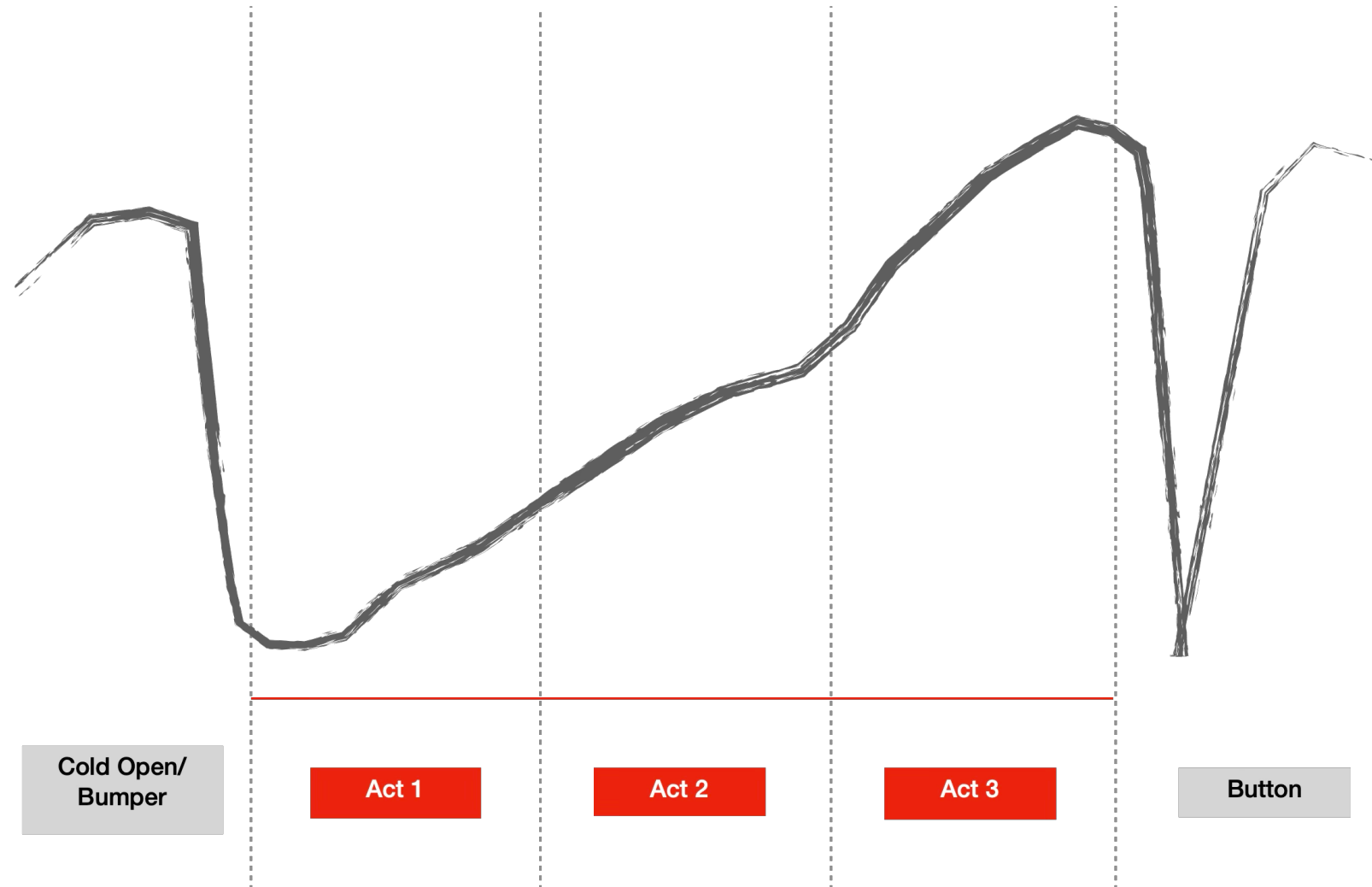
2. Dataset

- Data Collection & Structure
- Data Binning

3. Results

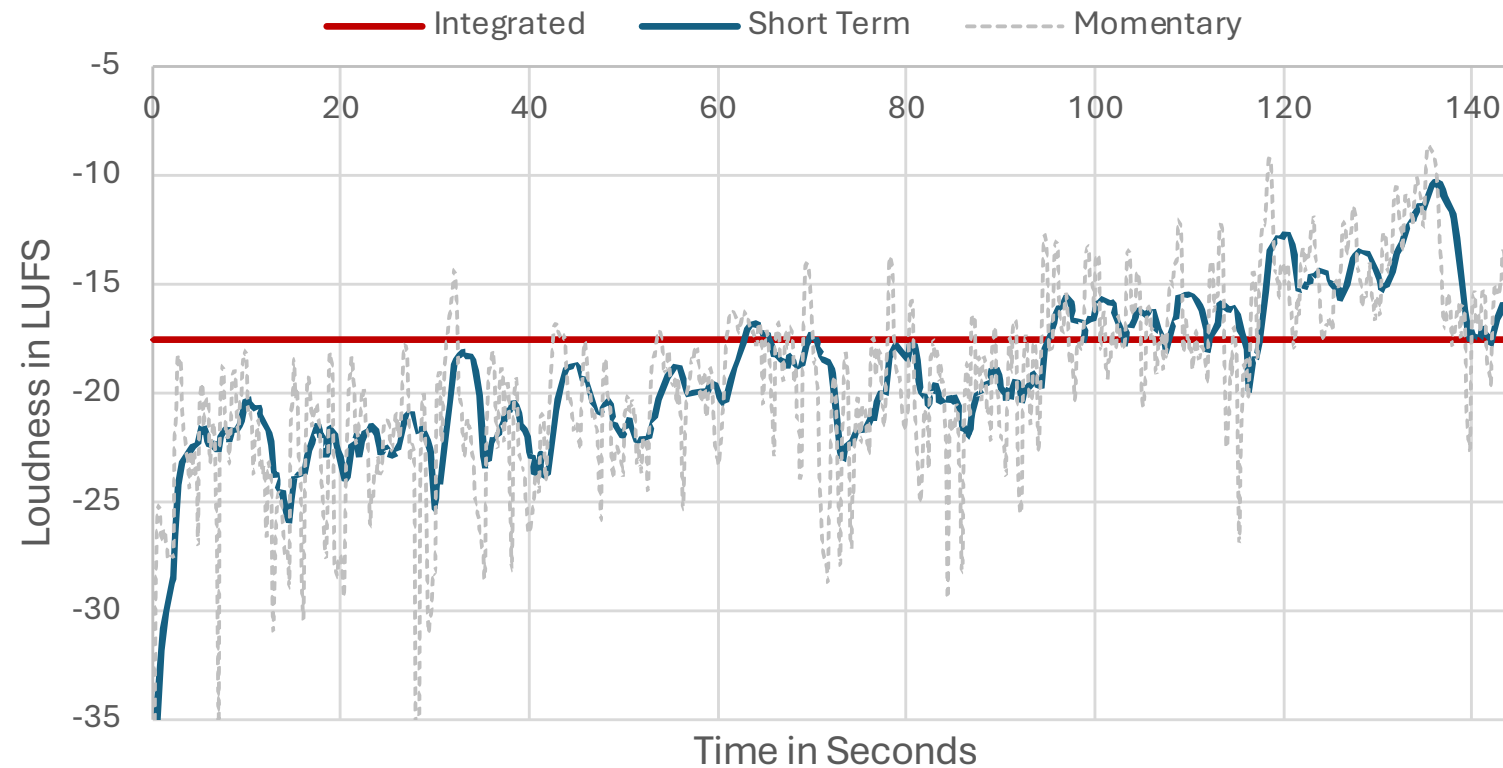
Background Knowledge

Movie Trailers



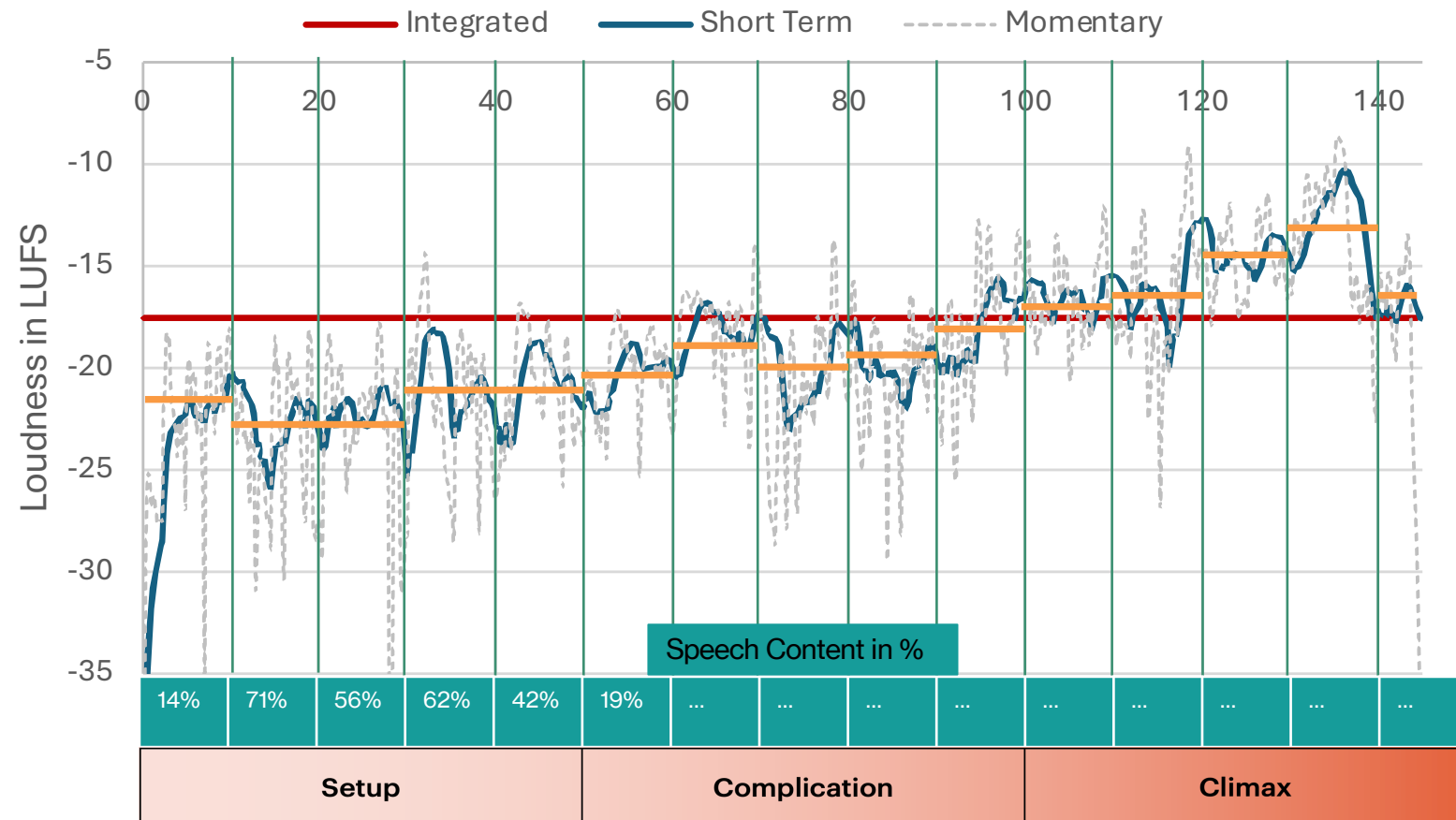
Measurement Method

Midsommar (2019) - Official Trailer



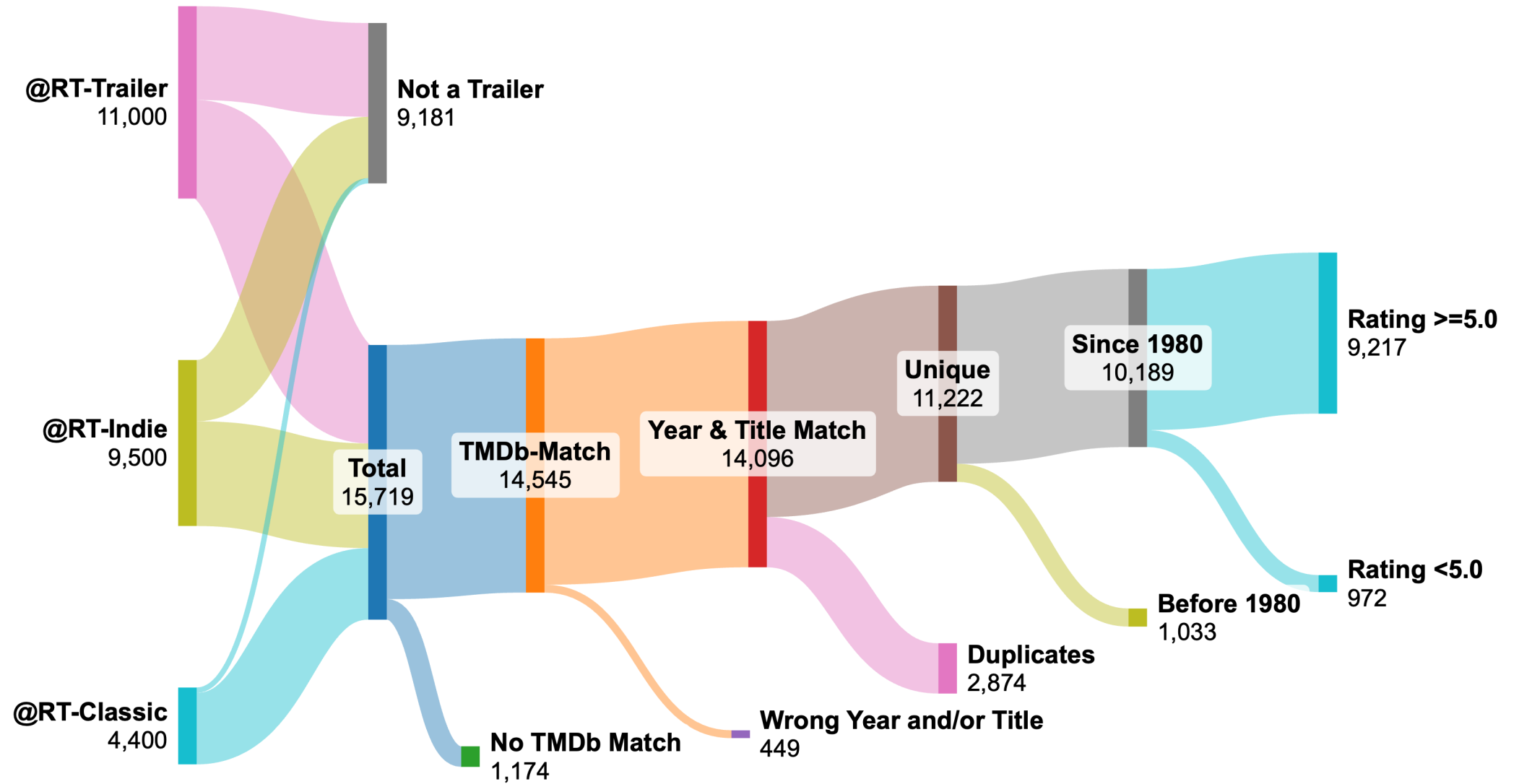
Measurement Method

Midsommar (2019) - Official Trailer

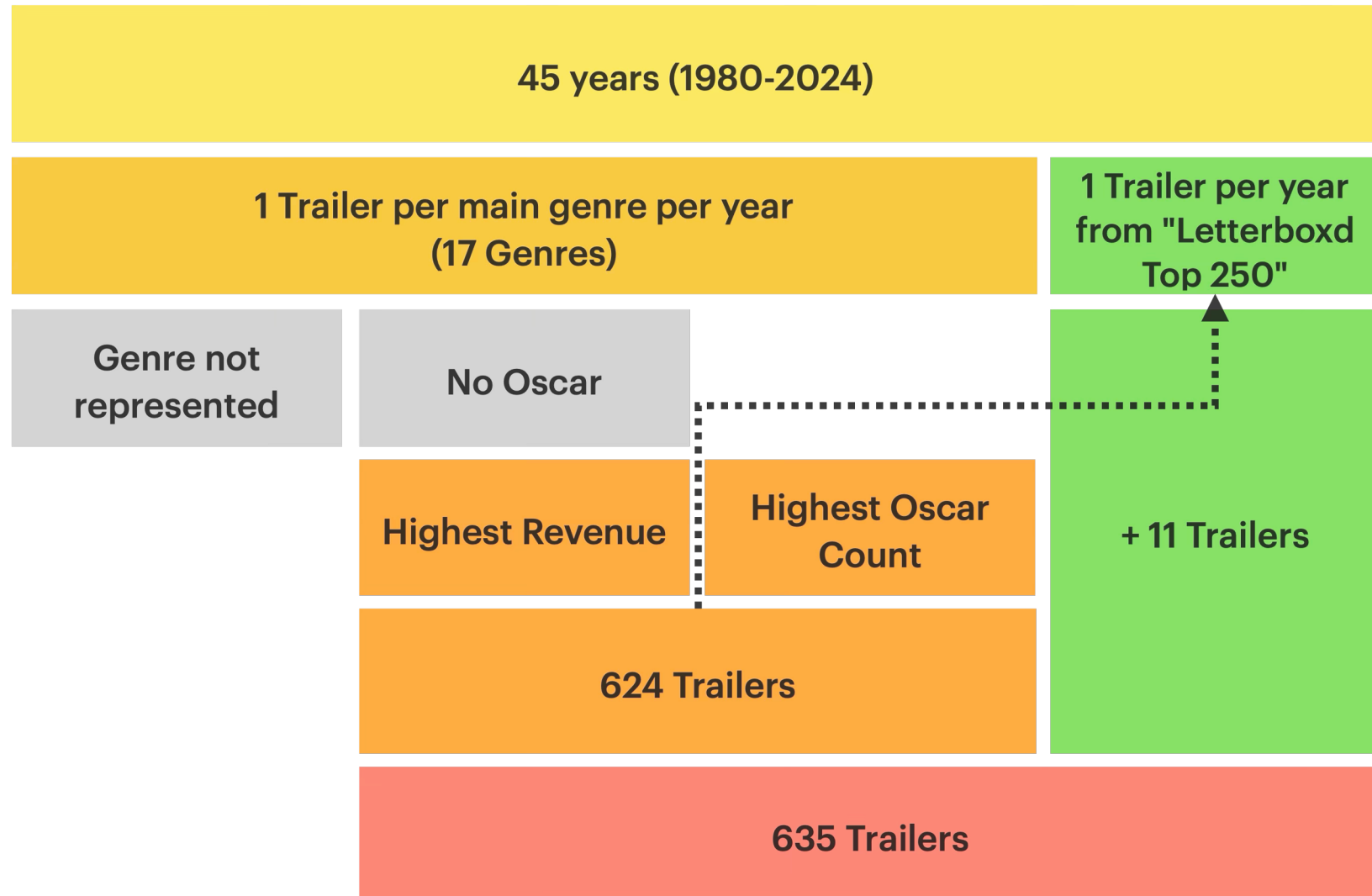


Dataset

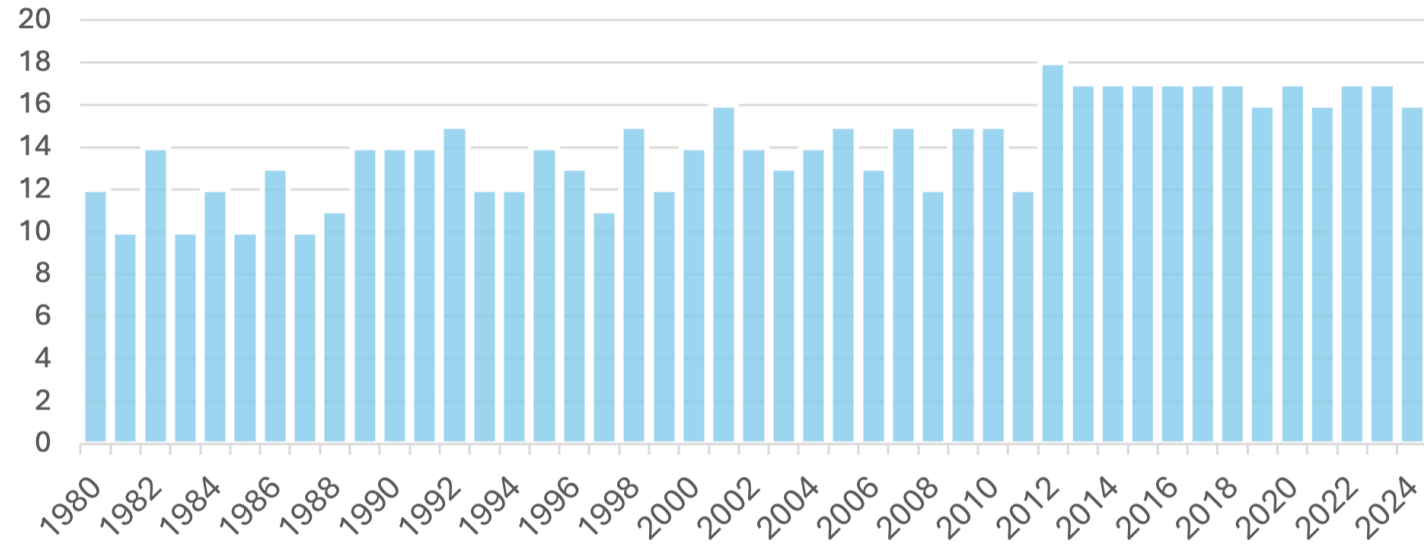
Data Collection & Structure



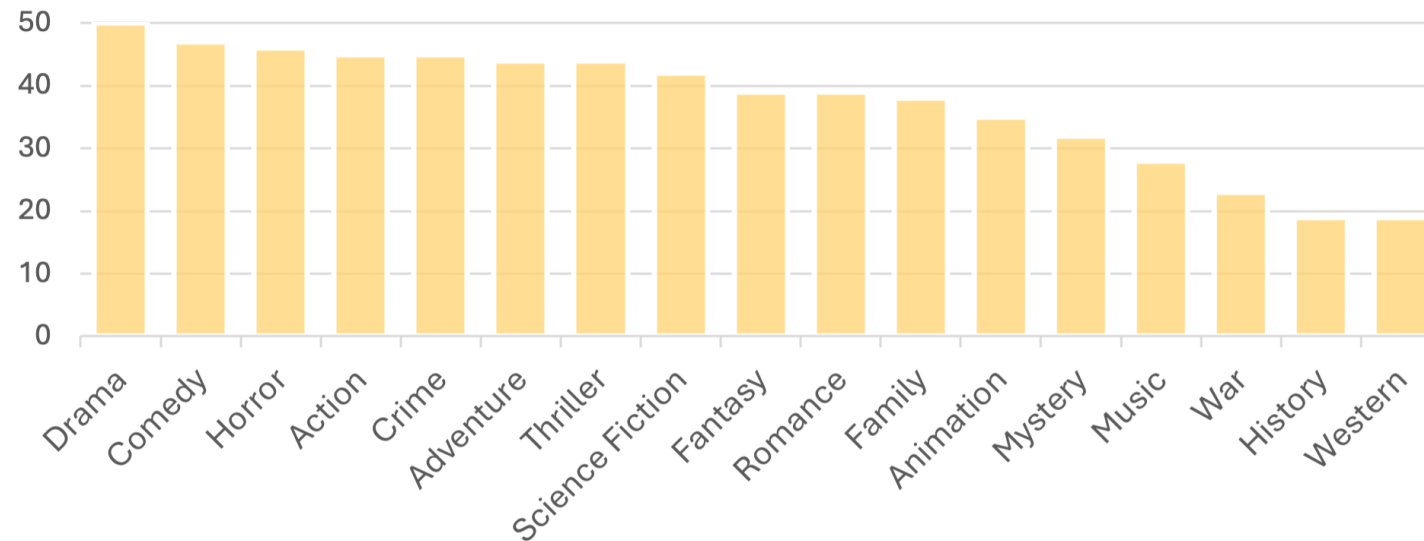
Data Collection & Structure



Number of Movie-Trailers per Year

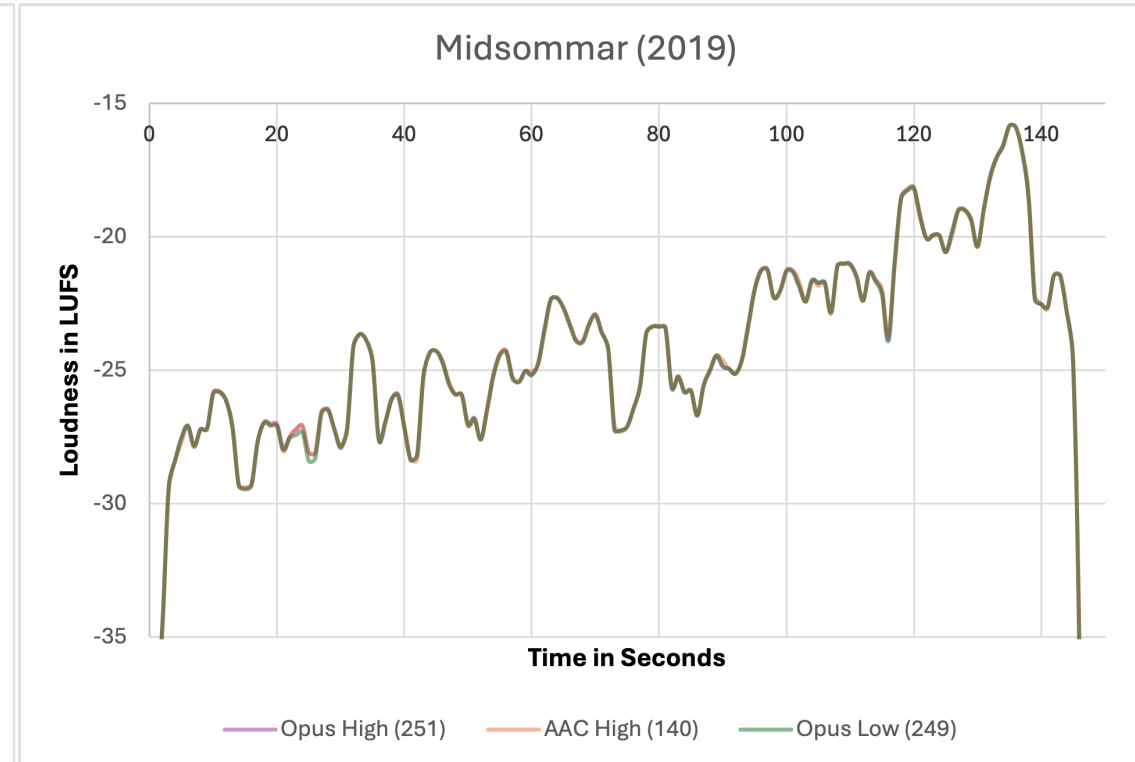
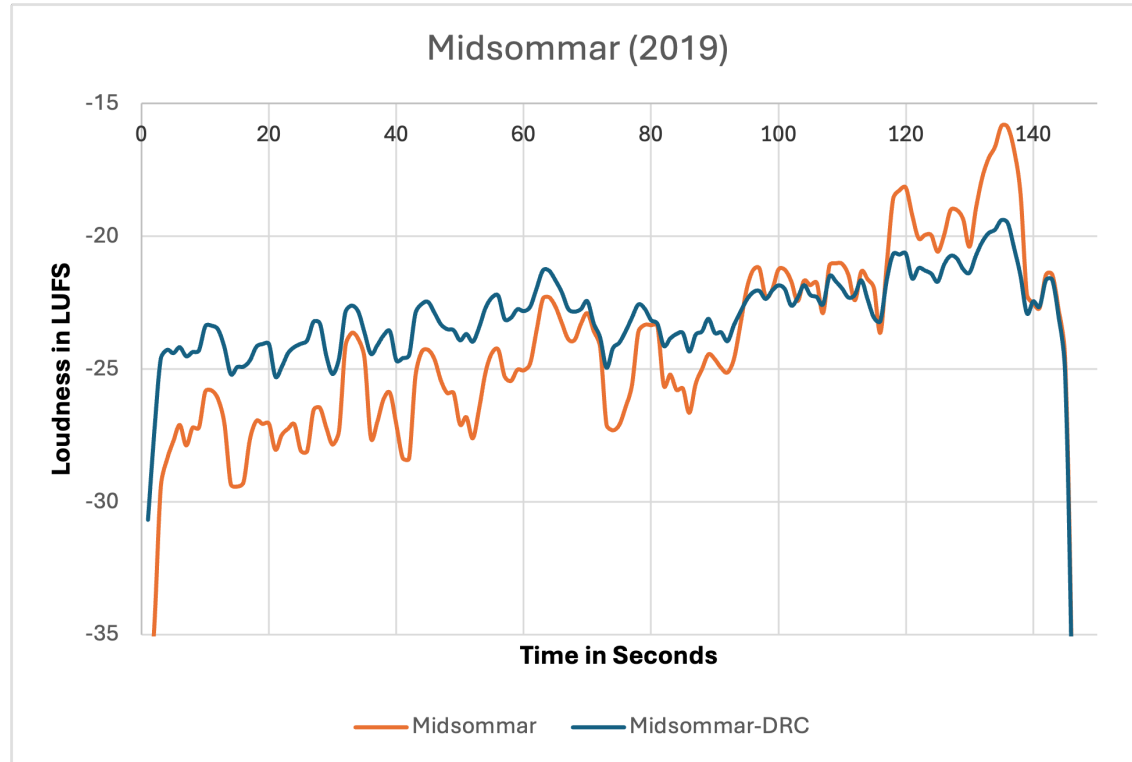


Number of Movie-Trailers per Genre



Data Collection & Structure

Download Trailers at highest Resolution without DRC (yt-dlp)



Data Collection & Structure

Download Trailers at highest Resolution without DRC (yt-dlp)

Cut Endcard

1st Loudness Measurement (Youlean Loudness Meter)

Normalize to -23 LUFS

2nd Loudness & Speech Measurement (Youlean Loudness Meter)

Make 10 second parts (ffmpeg)

3rd Loudness & Speech Measurement (Youlean Loudness Meter)

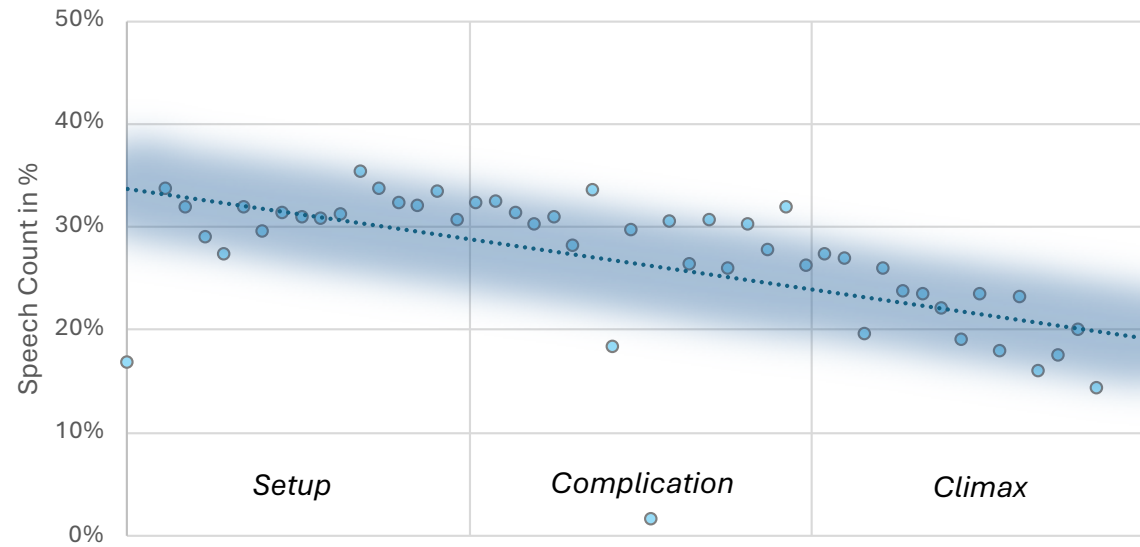
Average 8272 measurements inside 51 Data Bins

Data Binning

Data Bin	Bin 1	Bin 2	Bin 3	Bin 4	Bin 5	Bin 6	Bin 7	Bin 8	Bin 9
Trailer n_1	Part 0	Part 1	Part 2	Part 3	Part 4	Part 5	Part 6	Part 7	
Trailer n_{97}	Part 0		Part 1		Part 2		Part 3		Part 4
Location	Setup			Complication			Climax		

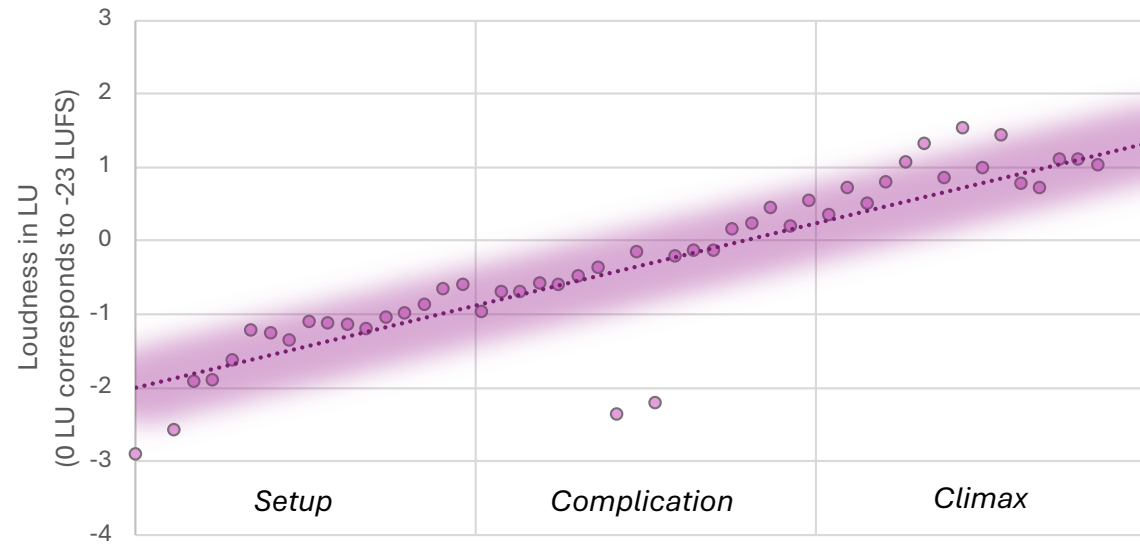
Results

Mean Speech Progression in Movie-Trailers since 1980
[51 Data Bins]



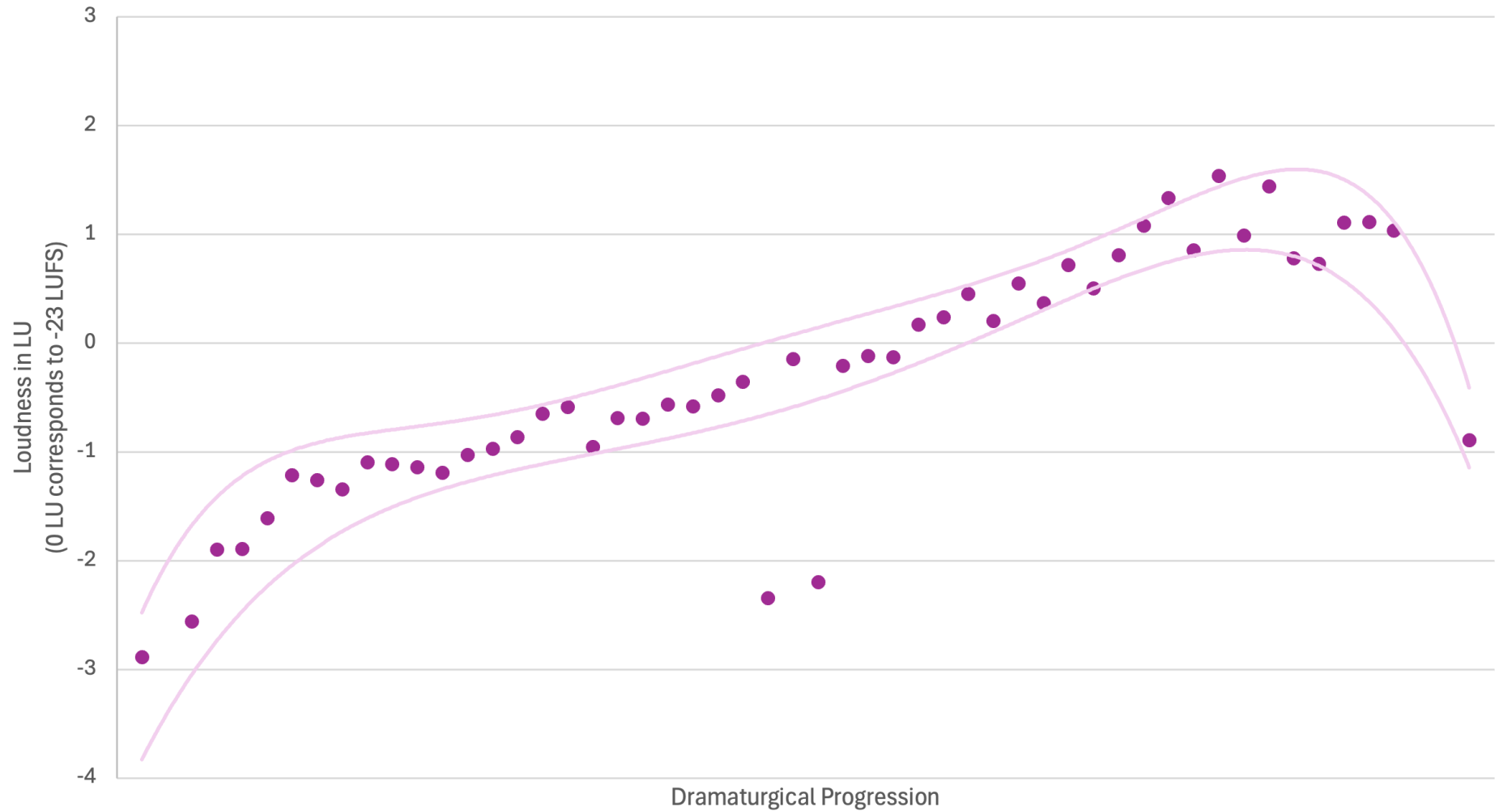
($r = -0.59$, $PG[51] = -5.18$, $p < .001$)

Mean Loudness Progression in Movie-Trailers since 1980
[51 Data Bins]

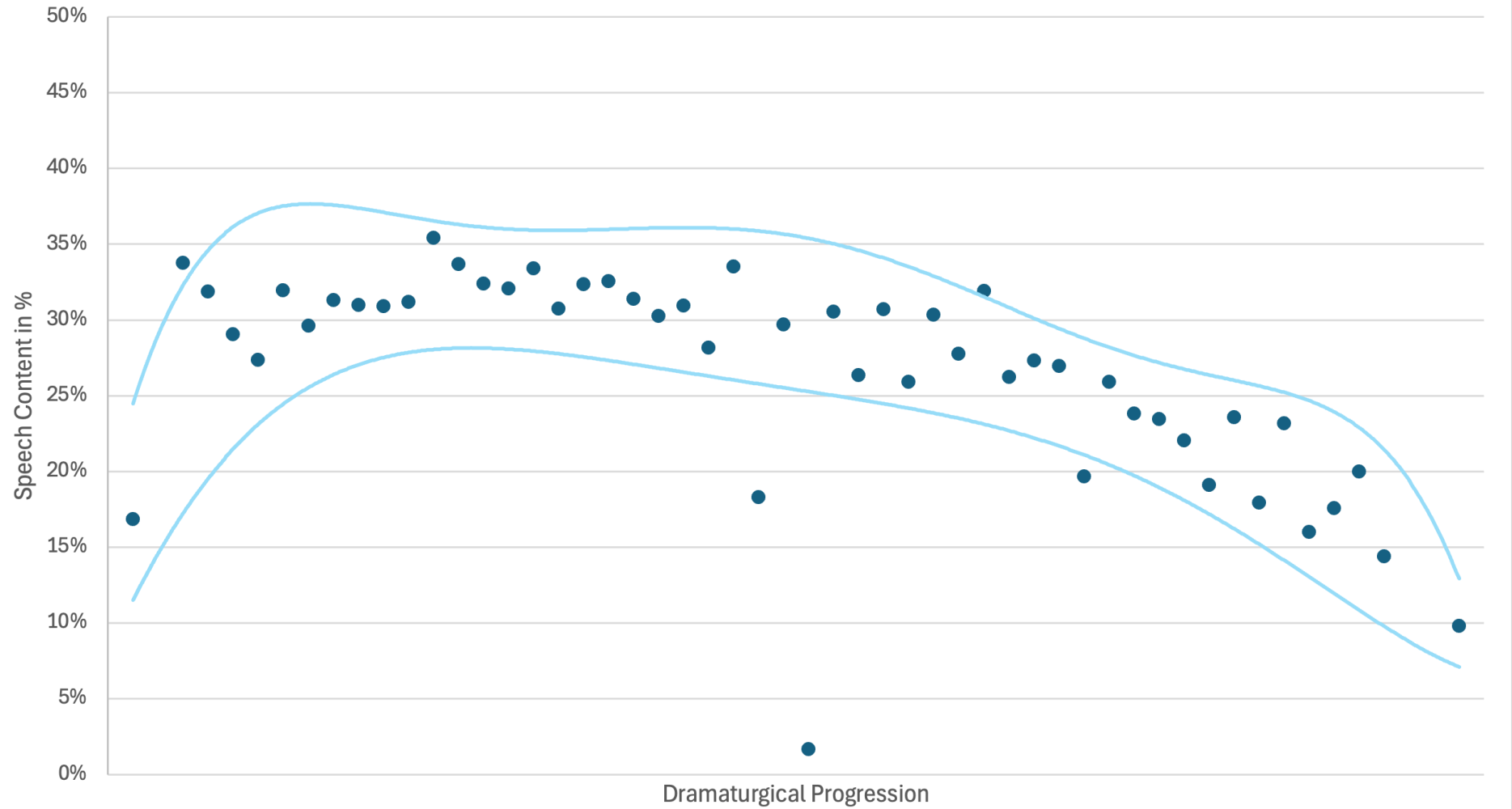


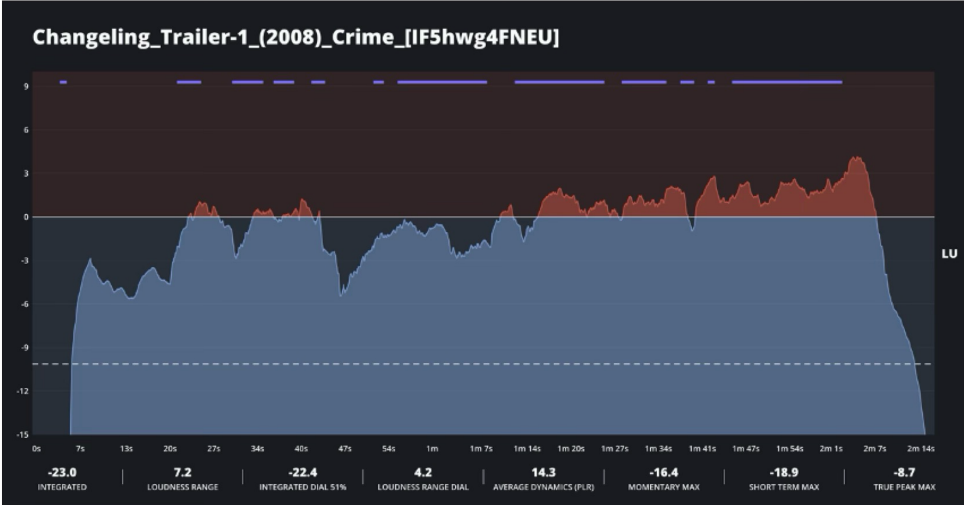
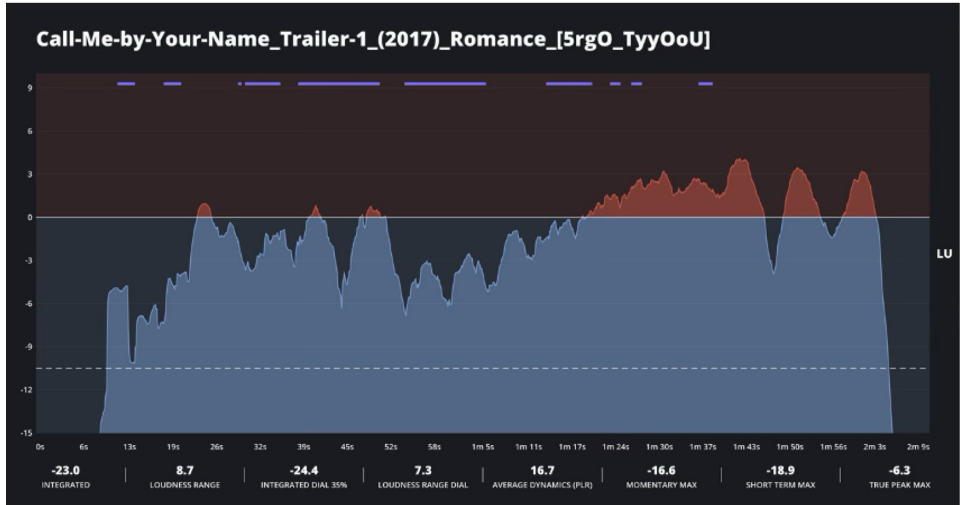
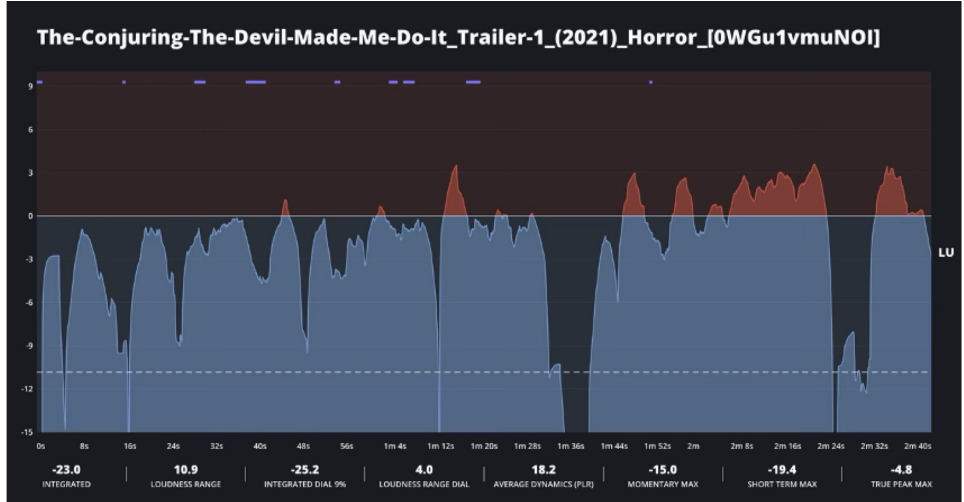
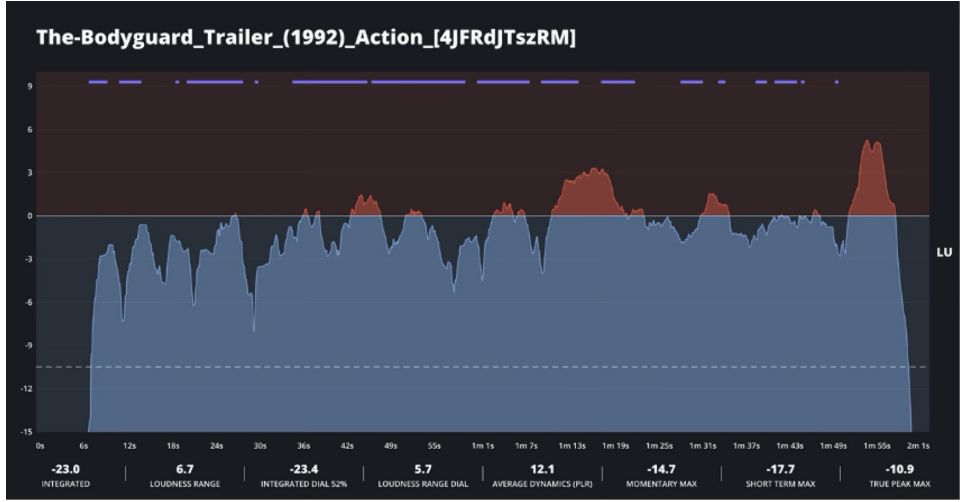
($r = 0.85$, $PG[51] = 11.31$, $p < .001$)

Loudness Progression and 95% Confidence Interval

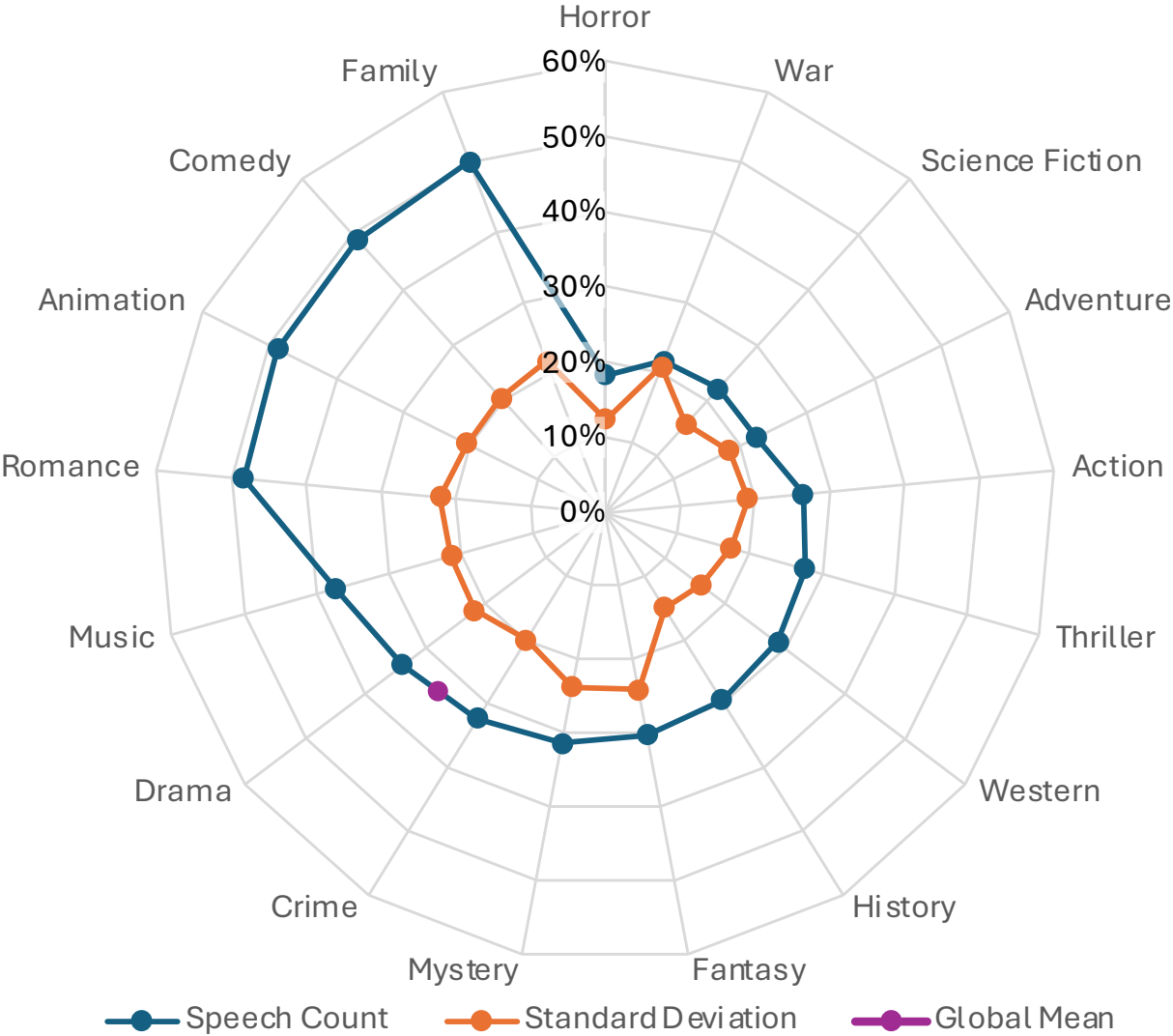


Speech Progression and 95% Confidence Interval

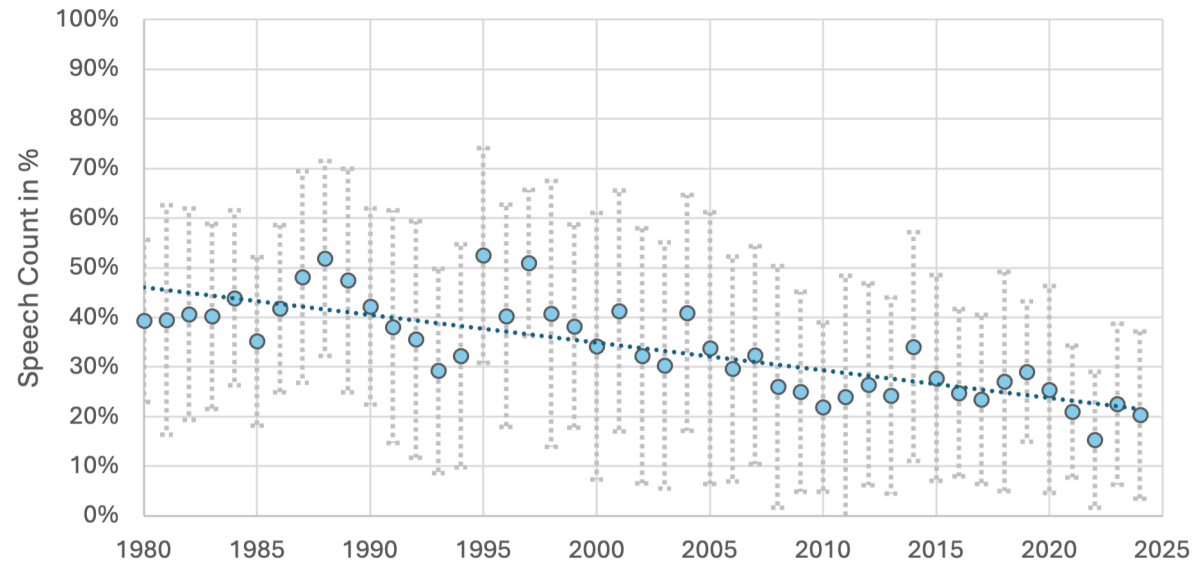




Mean Speech Count in Movie Trailer Genres

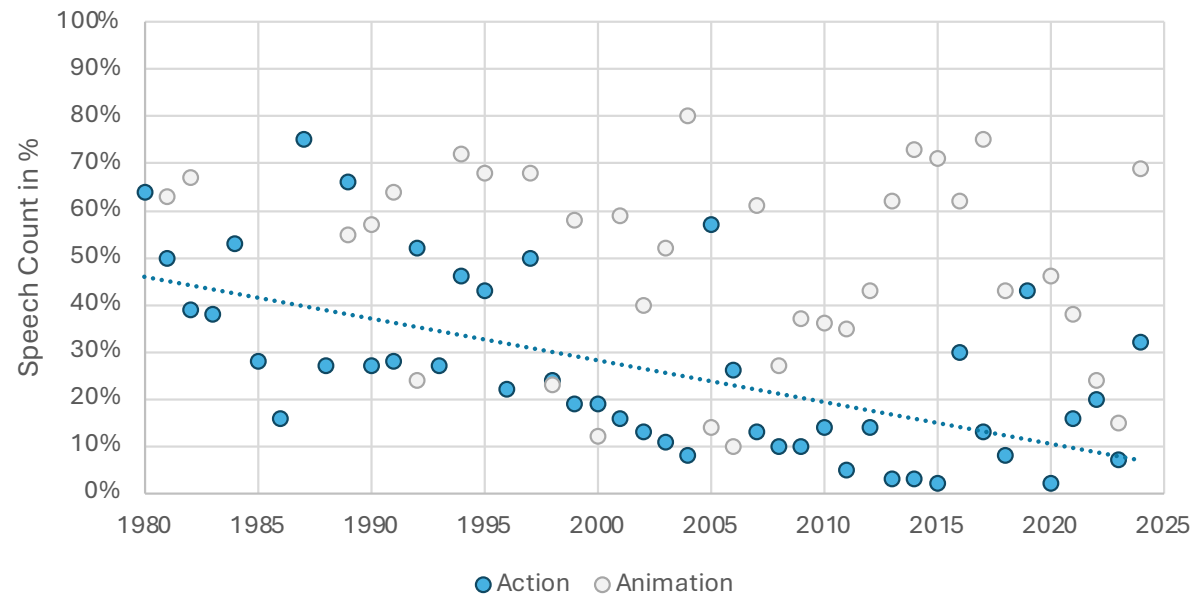


Mean Speech in Movie-Trailers since 1980



$(r = -0.79, PG[45] = -8.48, p < .001)$

Speech Count of Movie-Trailers in different Genres since 1980

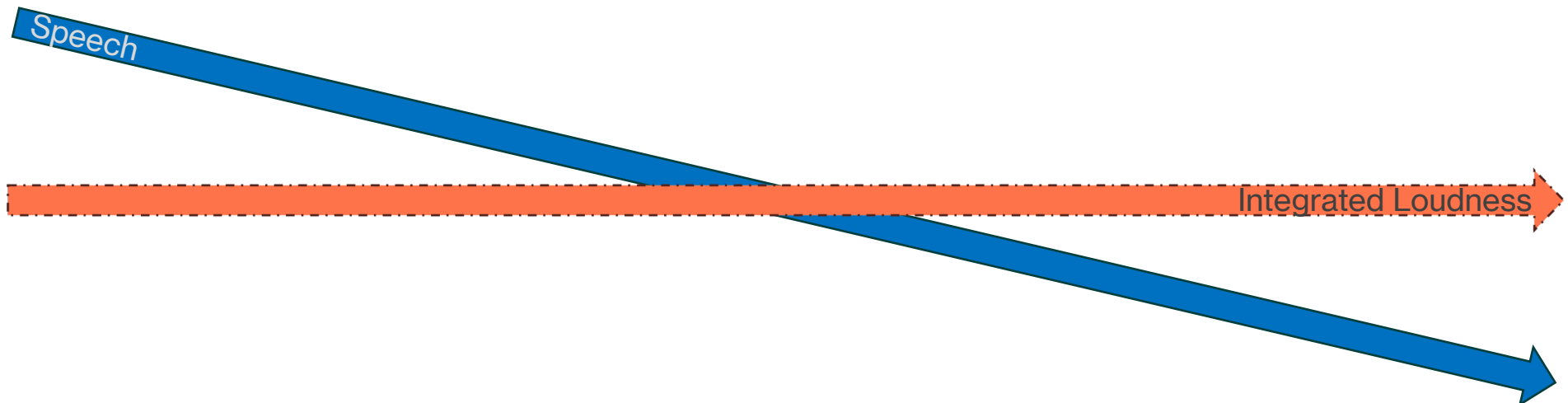
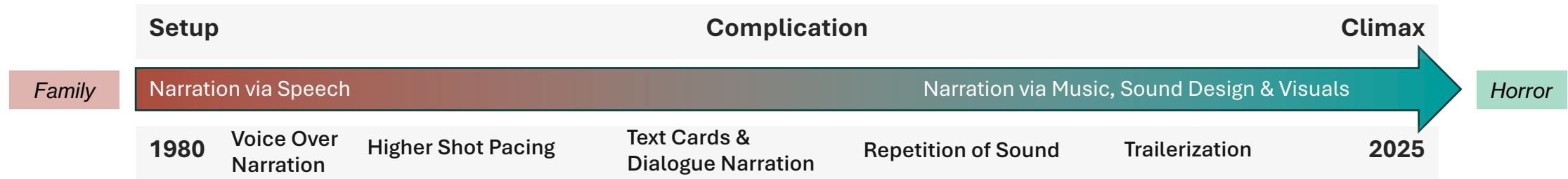
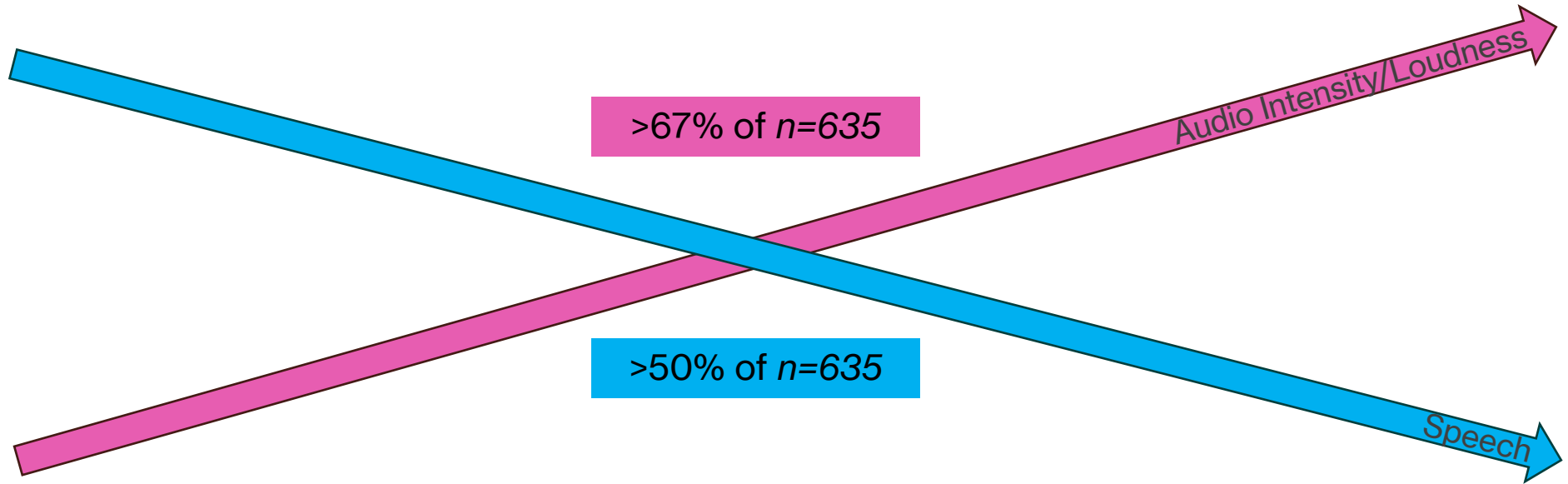


Action

$(r = -0.61, PG[45] = -6.36, p < .001)$

Animation

$(r = -0.18, PG[35] = -1.06, p = 0.30)$



Many thanks to

Prof. Felix Krückels

Prof. Dr. Kyrill Alexander Fischer

Questions? Write me:

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***Link to the
Thesis,
Presentation
and CSV-
Dataset***



sebastianhage.de/movie-trailers

