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## **PHONETIC AND PRAGMATIC ANALYSIS OF THE DISCOURSE MARKER *SZERINTEM* 'I THINK, TO MY MIND' IN SPONTANEOUS CONVERSATIONS**

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# INTRODUCTION

***szerintem*** (~‘I think; to my mind’, cf. Aijmer 1997, Mullan 2010)

- the most frequent opinion-marking discourse markers (DJs) in Hungarian (Dér 2016, 2020)
- expresses evidentiality: epistemic-inferential (epistential) item (Kugler 2015), evaluation (Dér 2018)
- data from the 19th century in Hungarian (Dér 2016)

inflected form of a noun: *szer-int-em*

***szer*** ‘mode, way’ + ***-ént*** (lative suffix *-é* + locative *-n* + locative *-t*) > *szerint* + personal suffix (***-m***, ***-d***, ***-e***, etc.)

different from the postposition *szerint* ‘according to, pursuantly’ (from the 14th cent.), the root of *szerintem*

# INTRODUCTION

- may signal a boundary in discourse (topic shift, summing, turn completion, etc.) (cf. DM-functions: Crible 2018)
- boosting/mitigating/hedge function, depending on the topic of the conversation and the relationship of the interlocutors (Koczogh 2012, Dér 2020):
  - (1) M02: *Az eutanázia bűn.* F02: **Szerintem** ez nem bűn.  
'M02: Eutanasia is a sin. F02: I don't think it's a sin' (Koczogh 2012: 178)
  - (2) F05: *Az eutanázia bűn.* M05: **SZERINTEM** ez HÜLYESÉG.  
'F05: Eutanasia is a sin. M05: I THINK it's NONSENSE' (Koczogh 2012: 76)
- in spontaneous conversations: LP (left periphery): 63%, medial: 23%, RP (right periphery): 14% (30 conv., 180 hits, Dér 2018)

## INTRODUCTION: *szerintem* & turn-taking

In absolute LP and RP position (when it is not preceded/followed by other markers or interjections) the speakers can take (3) and pass the floor (4) with *szerintem*:

- (3) S: izguljanak a hollandok nem↑ nem↑ ()

Fw2: **szerintem** azoknak már végük↓

[S: Get the dutch excited, right?

Fw2: I think they are over']

- (4) S: úgyhogy majd megyünk vasárnap délben **szerintem**↓

Fw2: de ez csak két napos vagy van pénteken is↑

[A: so we will go on Sunday at noon I think

Fw2: but it's only two days long or is it on Friday as well']

# AIMS AND HYPOTHESES

We planned to conduct

**a corpus-based analysis** of *szerintem* from phonetic and pragmatic approach:

To analyze

- the effect of age and gender of the speaker on the occurrence of the *szerintem*,
- prosodic independence of *szerintem* (duration, F0 patterns) regarding its position
- the occurrence of *szerintem* in turn-takings.

## Hypotheses

- *Szerintem* is **phonetically independent** (surrounded by pauses, 'single word') [Lam 2009, Gonen et al. 2015, Heine et al. 2021, but cf. Brinton 2017].
- *Szerintem* occurs in initial **pragmatic position** (LP) in general (Dér 2018).
- *Szerintem* occurs in the vicinity of **turn takings**, mainly in absolute turn-initial position after turn taking.
- The occurrence and the realization of *szerintem* is influenced by the speakers' age and gender.

# METHODOLOGY

- 40 conversations were selected from the Hungarian Spontaneous Speech Database (BEA, Neuberger et al. 2014)
- 2 fieldworkers + 1 subject
- 2 age groups of the subjects (20–30 yrs, 40–55 yrs), 10 female, 10 male in each age groups
- 12 hours long material (average time: 18 min)
- Word and interpausal unit (IPU) level annotation (just concerning to the target words *szerintem* ‘in my opinion’), extended with the information about the phonetic and pragmatic positions (Praat: Boersma–Weenink 2021)
- Duration and f0 were extracted automatically using a Praat script
  - Extracting f0: different settings in each groups
- Statistics:  $\chi^2$ -test Kruskal–Wallis-test, Mann–Whitney-test

# METHODOLOGY

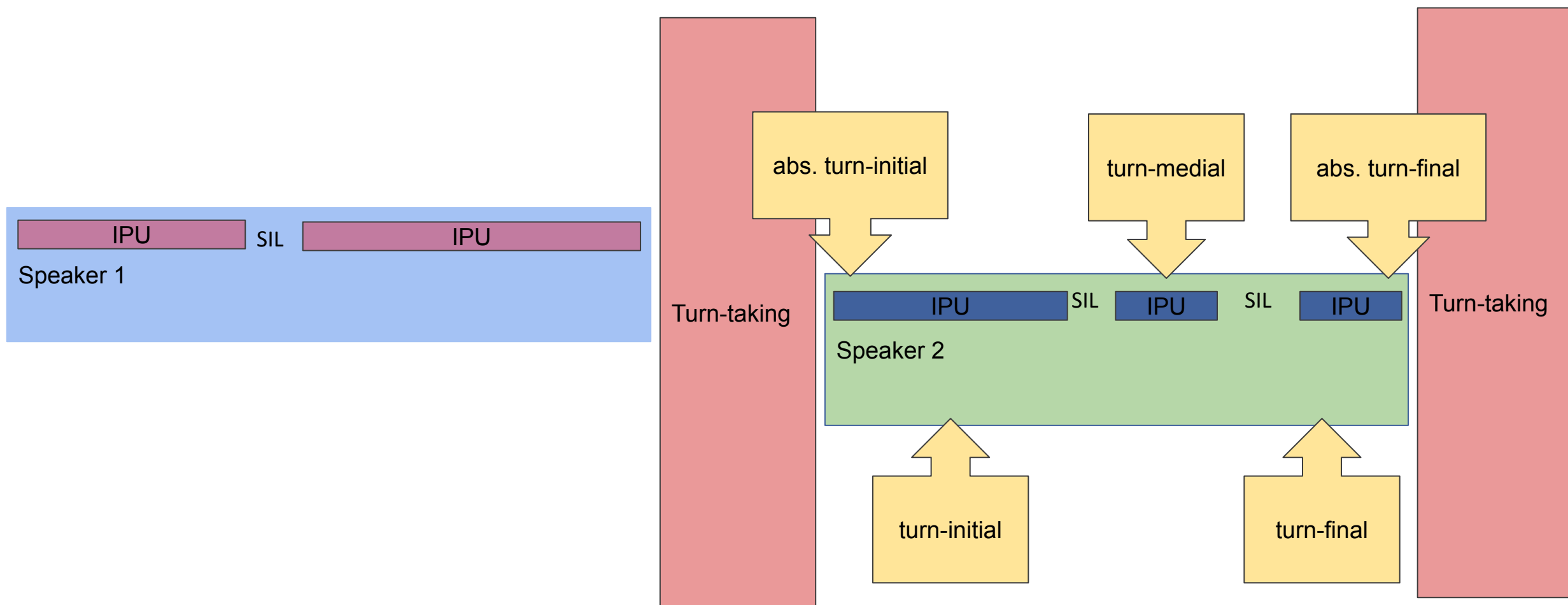
## ■ Pragmatic positions: LP, RP, medial

- **absolute initial:** *szerintem* is the first element in the clause (or turn)
- **initial:** *szerintem* follows one or two (three) DM: *hát szerintem* ‘well I think’, *hát de szerintem* ‘well but I think’
- **medial:** *szerintem* occurs in the clause structure
- **final:** *szerintem* is the closing element after the clause

## ■ Positions regarding turn taking

- **absolute initial:** *szerintem* is the first element in the IPU immediately after a turn taking
- **initial:** *szerintem* is one element of the first IPU immediately after a turn taking
- **final:** *szerintem* is one element of the last IPU before a turn taking
- **absolute final:** *szerintem* is the last element of the last IPU before a turn taking

# Analysis of the position





# ANALYSIS

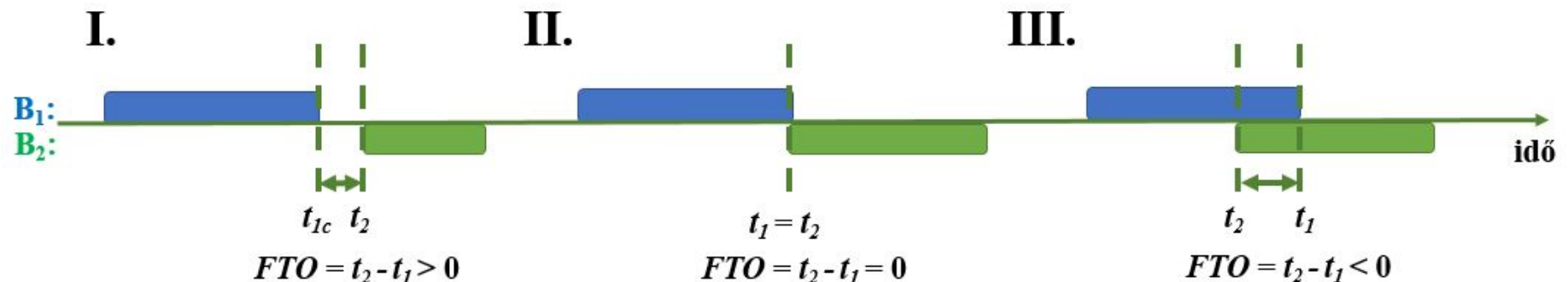
## The occurrence and realization (duration, F0) of *szerintem* regarding

- i) the position (phonetic and pragmatic),
- ii) age,
- iii) gender of the speaker

The **relation of *szerintem* and turn taking**: occurrence, position (turn-final or turn-initial).

Timing patterns of turn taking, Floor Transfer Offset (FTO): time between the end of the current speaker's turn and the start of the following turn by the next speaker, De Ruiter et al. 2006, Stivers et al. 2009)

- I. turn taking after a pause – positive FTO
- II. turn taking with 0 ms FTO
- III. turn taking after overlapping speech – negative FTO





**R E S U L T S**

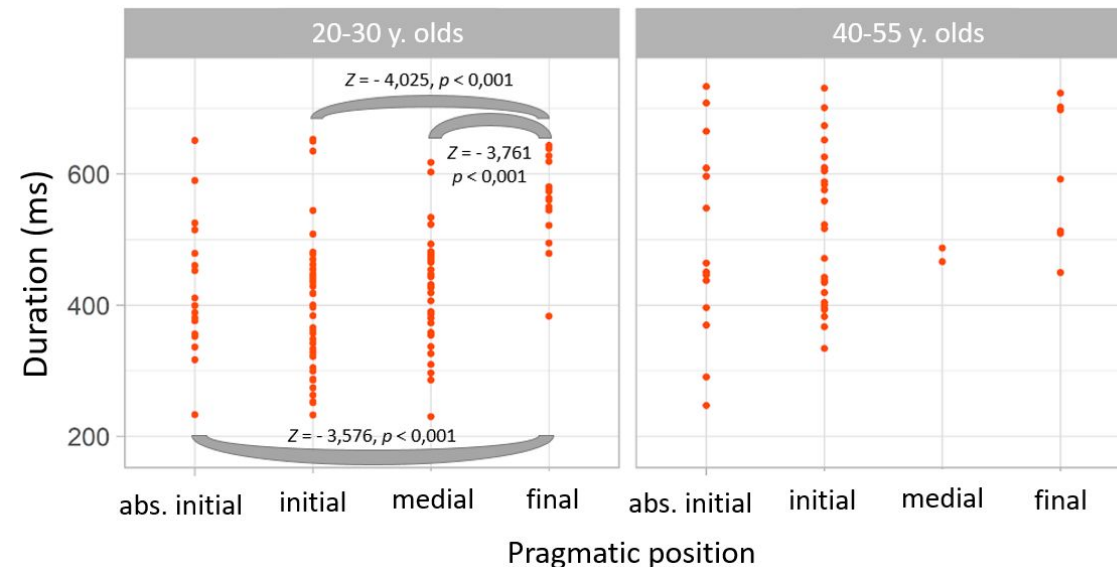
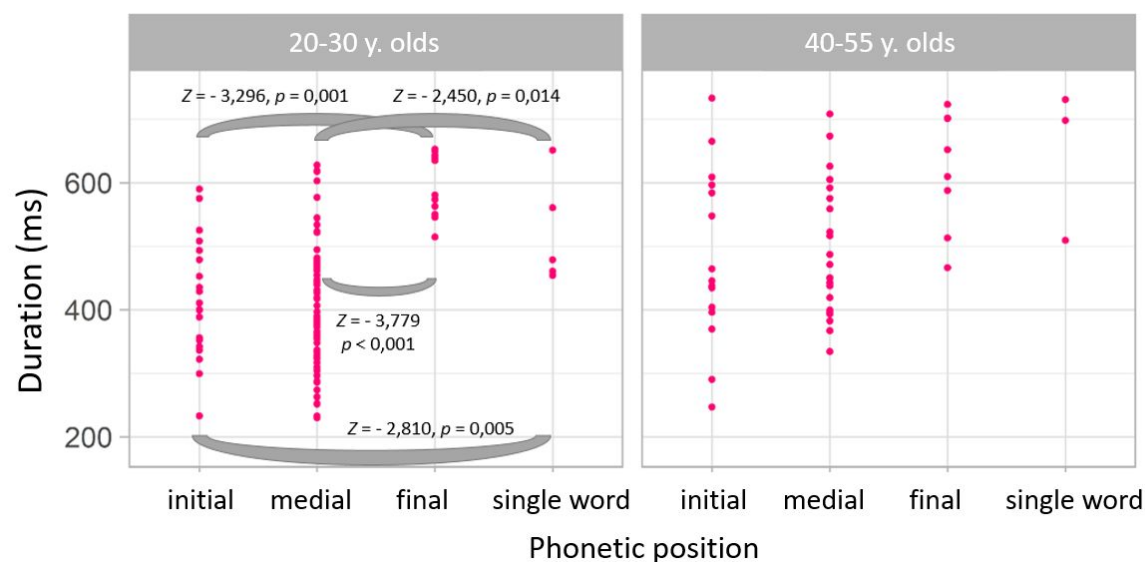


## RESULTS

- 40 three-party conversations: *szertem* occurred in 32 conversations (80%).
- Occurrence: 5.5 '*szertem*'/conversation (SD: 7.1 items/conv).
  - Min. occurrence: 1 '*szertem*'/conversation
  - Max. occurrence: 39 '*szertem*'/conversation

Distribution of <i>szertem</i> regarding age and gender of the speaker			
	Female speakers	Male speakers	All
20–30 year olds	56	72	128
45–55 year olds	24	25	49
All	80	97	177

# DURATION OF *SZERINTEM* 'I THINK'



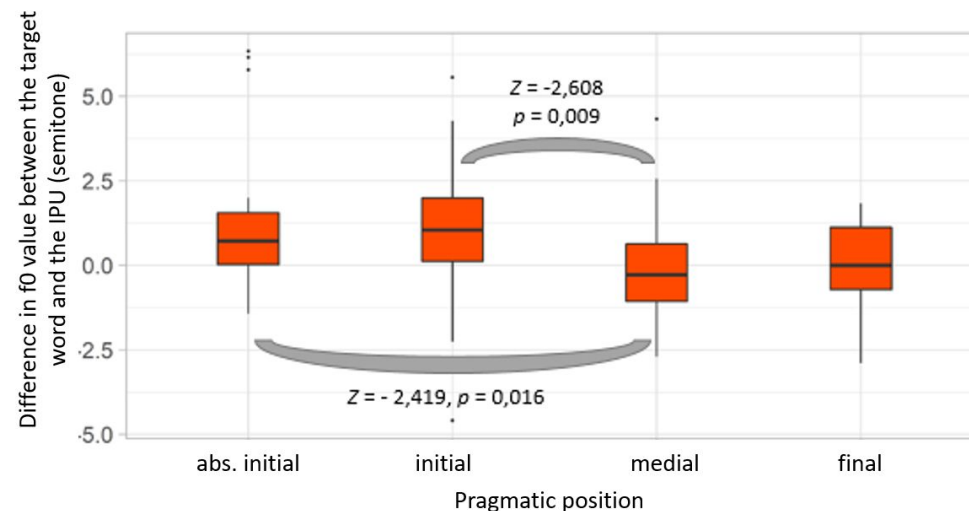
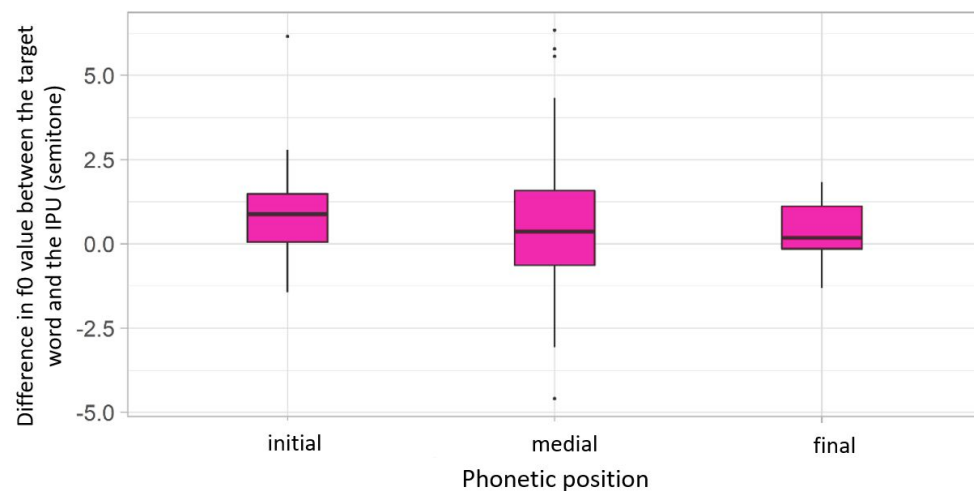
## Phonetic positions:

- Longer duration in final position and in single-word IPU-s (phrase final lengthening) – significant differences: only in the group of 20-30 year olds

## Pragmatic positions:

- Longer duration in final position (pragmatic final position – most of the cases phonetic final position as well) – significant differences: only in the group of 20-30 year olds

# FUNDAMENTAL FREQUENCY (F0)



**Phonetic position:** no significant differences between the positions

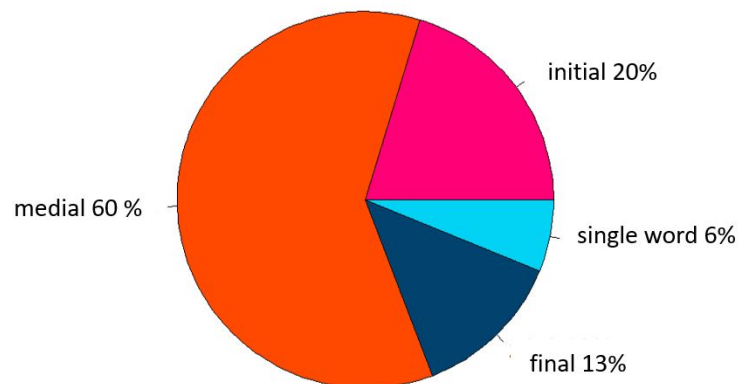
- *Szerintem* has a higher f0 in the initial position than the entire IPU has
- *Szerintem* has the greatest f0-variability in the medial position

**Pragmatic position:**

- Higher f0 in absolute initial and initial positions – possible reasons:
  - Different prosodic features can be connected to different pragmatic functions (in left periphery can be more subjective, in right periphery can be more intersubjective (Traugott 2014, de vö. Rhee 2020, Dér 2021))
  - Most of the cases it is at the beginning of the intonational phrase (e. g.: there is only one DM before *szerintem*)

# DISTRIBUTION IN PHONETIC AND PRAGMATIC POSITIONS

Occurrence of the target word in different phonetic positions

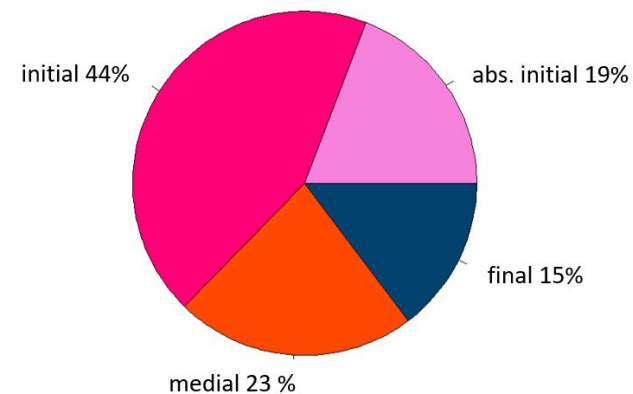


Phonetic position	Pragmatic position			
	abs. initial	initial	medial	final
single word	4	1	2	4
final	1	9	1	12
medial	5	58	35	9
initial	24	9	2	1

items

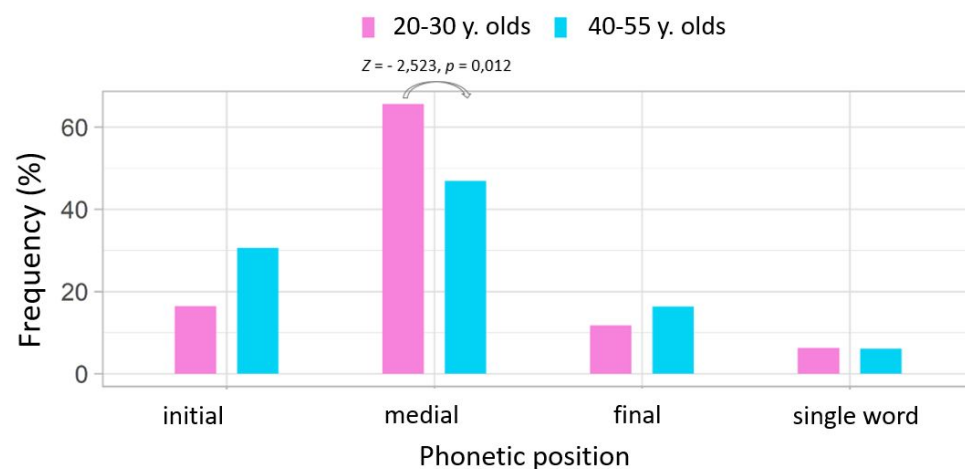
1000  
500  
250  
100

Occurrence of the target word in different pragmatic positions



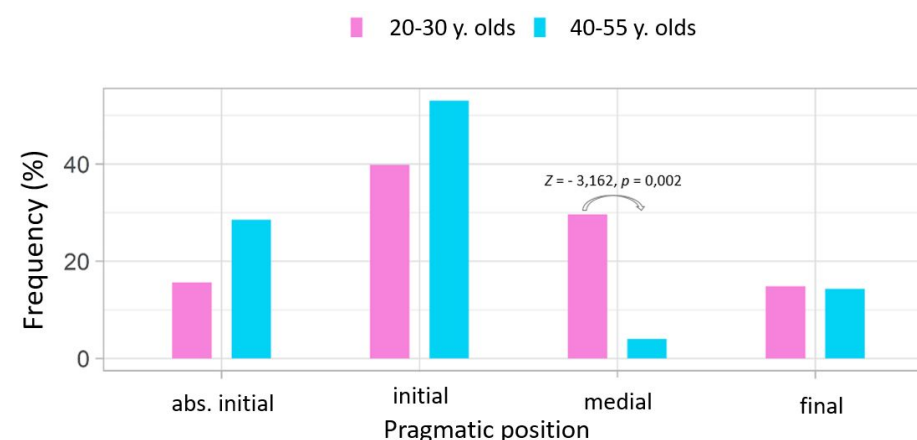
- **No prosodic independency:** *szerintem* occurred in medial phonetic position (not surrounded by pauses) in 60%)
- Phonetically initial (a pause before *szerintem*) and final (a pause after *szerintem*) position – only 20% of all cases
- *szerintem* as a single word IPU – very low occurrence (6%) – mostly at absolute initial or final pragmatic positions
- *Szerintem* mostly occurs in pragmatic initial (abs. init.: 19%, init.:44% -> 63%)
- Lower occurrence in the other two positions (below 25%)
- Absolute initial pragmatic position – mostly in phonetic initial position (there is a pause before *szerintem*)
- Initial, medial pragmatic pos. – medial phonetic pos. (*szerintem* is not surrounded by silent pauses)
- Final pragmatic pos. – final phonetic pos. (there is a pause after *szerintem*)
- → phonetic and pragmatic positions only partly coincide with each other

# DISTRIBUTION REGARDING AGE



## Phonetic position:

- The medial position is frequent in both age groups but it is more frequent in the case of 20-30-year-olds (above 60%)
- Initial position is more frequent in the case of 40-55-year olds
- In the other two phonetic positions (final, *szerintem* as single-word IPU) there is no remarkable difference between the two age groups

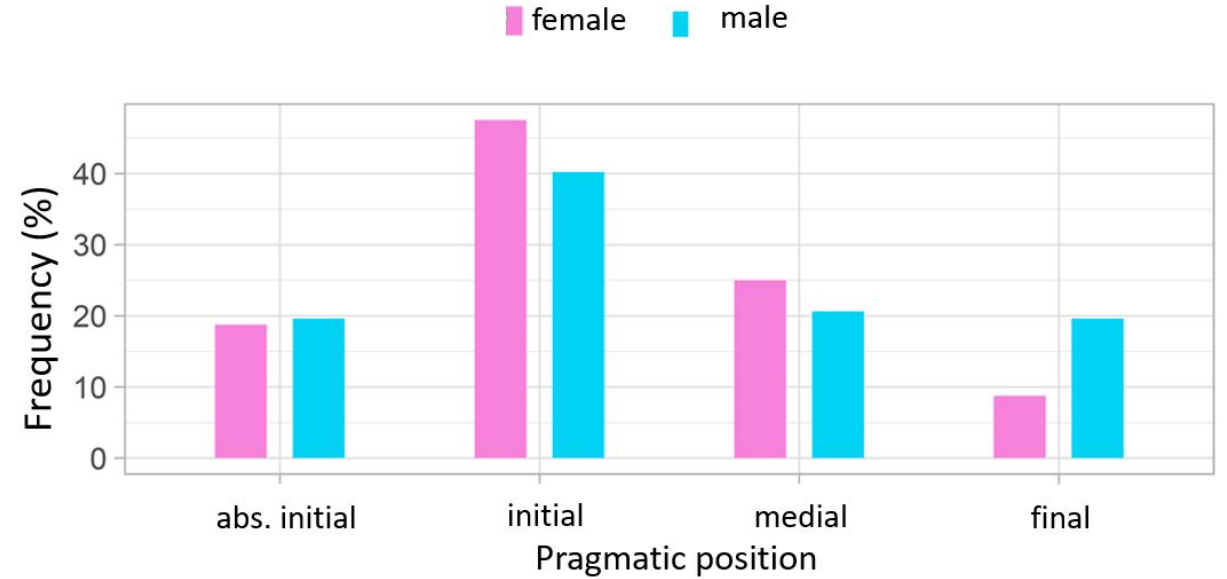
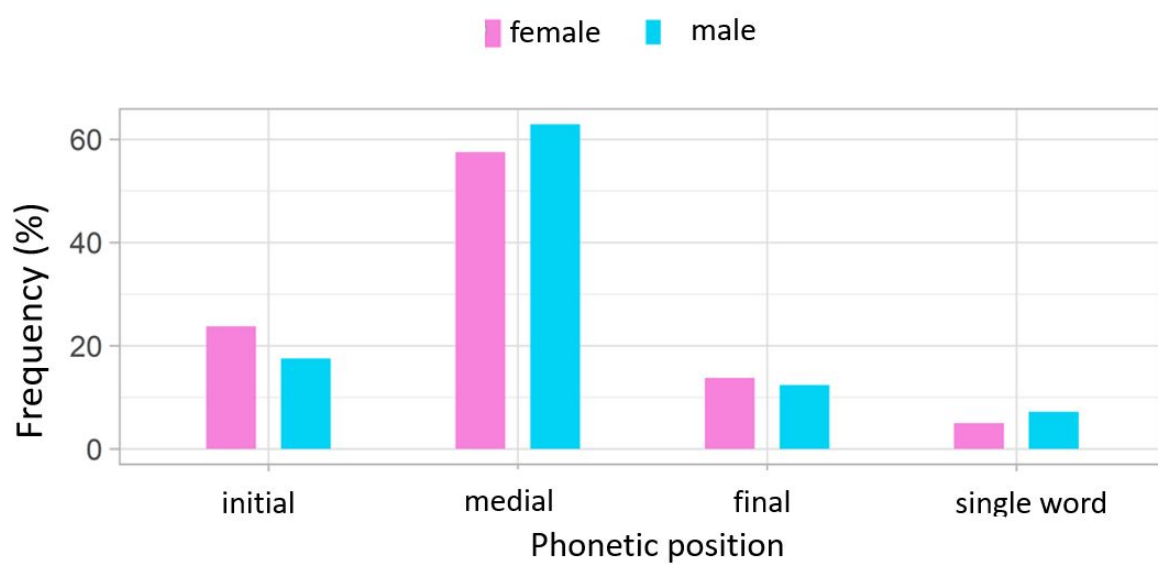


## Pragmatic position:

- Absolute initial and initial positions are more frequent in the case of 40-55-year-olds
- Medial position is more frequent in the case of 20-30-year-olds
- No remarkable difference in final position between the two age groups

20-30-year olds use *szerintem* more frequently than 40-55-year olds ( $\chi^2(3) = 13,509; p < 0,05$ )

# DISTRIBUTION REGARDING GENDER



Minimal differences in the frequency of *szerintem* in the different (phonetic and pragmatic) positions between females and males.

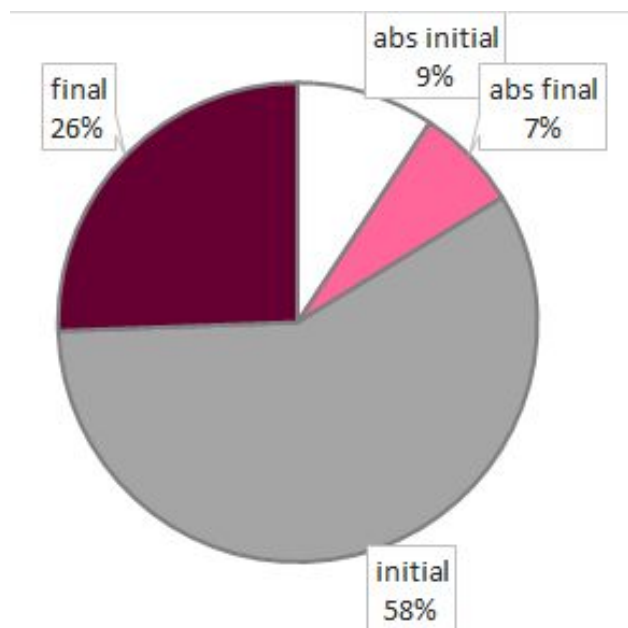


# TURN TAKING & SZERINTEM

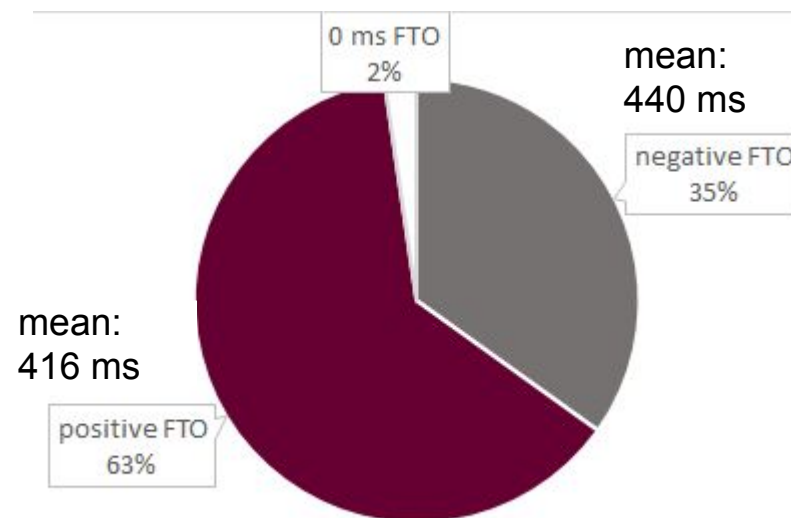
24.3% of all *szerintem* occurred in the near vicinity of a turn taking;  
in most of the cases in the first IPU after the TT,  
but not in an absolute initial position e.g.

‘a tapasztalatok alapján **szerintem** ez volt azért nem volt az olyan gyakori’ (the first IPU after turn taking)

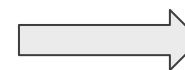
‘based on experience, **I think** it was not that common’



The distribution of FTO-values



most of them after/before positive FTO  
less after/before negative FTO  
2% after/before 0 ms FTO



general distribution of  
the FTO types

## CONCLUSIONS

- The age of the speaker influenced the occurrence of *szerintem* – more frequent in the younger speaker's speech BUT the gender had no significant effect on the usage of the DM.
- *Szerintem* is not phonetically independent.
- On the left periphery, *szerintem* was preceded by another DM (e.g. *hát* 'well', *igen de* 'yes but') in more than 40% of all cases – *szerintem* in rather internal position not initial position.
- Shift to medial pragmatic positions, e.g. *ez szerintem teljesen morbid* 'it's I think totally morbid' (bea034f020) – (syntactic) topic marker?
- TT and *szerintem*: almost one quarter of all data occur near a turn-taking, most of them in the initial position in the first IPU after TT; two thirds of these turns occur with positive FTO (with a silent pause not overlap)

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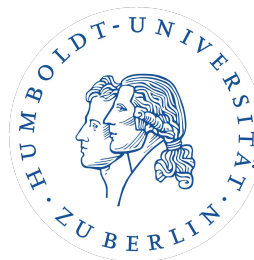
THANK YOU FOR YOUR ATTENTION!



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# ANALYSIS

- The **occurrence of *szerintem* from dynamic aspect**: splitting the recordings into equal parts (5 parts) + getting the data from each part; analysis of *szerintem* over time in the conversations

Advantage: the analysis is independent from the duration of the recordings (data are comparable)

Disadvantage: splitting the recordings independently from the conversational structure/function (may split coherent parts)

