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**Prosodic features of the topic information  
unit in BP and EP:  
a corpus based study**

Bruno Rocha  
Maryualê M. Mittmann  
Tommaso Raso

UFMG

# Foreword

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- Our aim is to present and describe the Topic intonational forms for European and Brazilian Portuguese.
- Spontaneous speech data from:
  - C-ORAL-ROM, EP  
(Bacelar do Nascimento et al. 2005)
  - C-ORAL-BRASIL, BP  
(Raso, Mello 2012)

# Language into Act Theory

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- LAcT Cresti (2000) is founded on Speech Act Theory (Austin, 1962)
  - Speech Acts are the reference unit for linguistic behavior
  - Speech Act: locution, illocution and perlocution
  - Utterance: "the linguistic entity accomplished by the speech act"

# Language into Act Theory

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- Utterance: delimited by prosodic breaks
  - Terminal: concluded sequences, pragmatically and prosodically autonomous
- Simple / Compound
  - Non-terminal: non autonomous units within the utterance
  - Prosodic units → Prosodic pattern ('t Hart, Cohen, Collier 1990)

\*MAI: no norte de Minas / existia um / &su / meio aparentado com a  
minha esposa //

TOP 

TOP/COM 

# Information Patterning Hypothesis

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- Prosodic pattern → Information Pattern
- Comment
  - Bears the illocutionary force
  - Necessary and sufficient
- Other prosodic units correlate with different information functions
  - Textual / Dialogic  
(Cresti 2000; Cresti, Moneglia 2010)

# Topic information unit

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- Domain of relevance for the illocutionary act
- Provides a linguistic context for the illocution, when the situational context is not sufficient for the proper interpretation of the Speech Act (Signorini 2005)
- Its absence leads the illocutionary force to be interpreted in reference to the situational context

# Topic information unit

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- Function: to establish illocution's semantic domain
- Distribution: on the left of the comment unit, not necessarily contiguously
- Intonation: prefix intonational profile ('t Hart, Cohen, Collier 1990)
  - Functional focus signaled by a prosodic prominence, not either prosodically nor pragmatically autonomous

# Topic information unit

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- Locutionary content must establish a semantic domain of reference

- (1) NP topic

\*ELI: **a minha mãe** /=TOP= devia tar ali / né / Luis // 

\*ELI: my mother / should be there / right / Luis //

- (2) VP topic

\*SIL: **se for vinho importado** /=TOP=COM= eu tomo // 

\*SIL: if the wine is imported / I drink it //



# Intonational form

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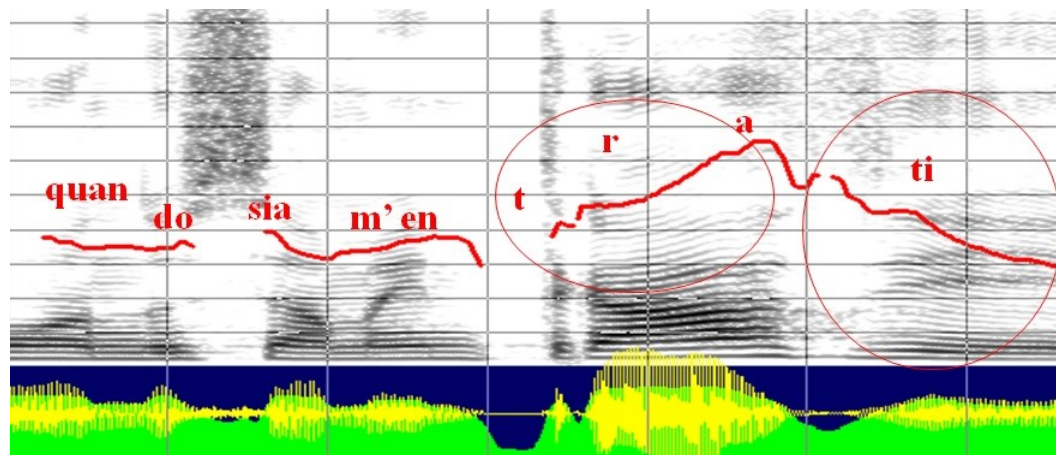
- Set of prosodic features that occurs consistently within an information unit and correlates with its informational function
  - Pitch contour, timing, duration, average and onset fundamental frequency values
- Nucleus: portion with perceptual prominence associated with the information function
- Optional: preparation, coda
  - Corpus based studies on spoken Italian: 3 different forms for Topic

# Intonational form

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- Type 1: rising-falling F0 movement.
  - Rising: on the last tonic syllable
  - Falling: on the post-tonic syllable(s)
  - Tonic and post-tonic(s) syllables are lengthened

(3) \*SAB: **quando siamo entrati** /≠TOP= c' era un sacco di gente //

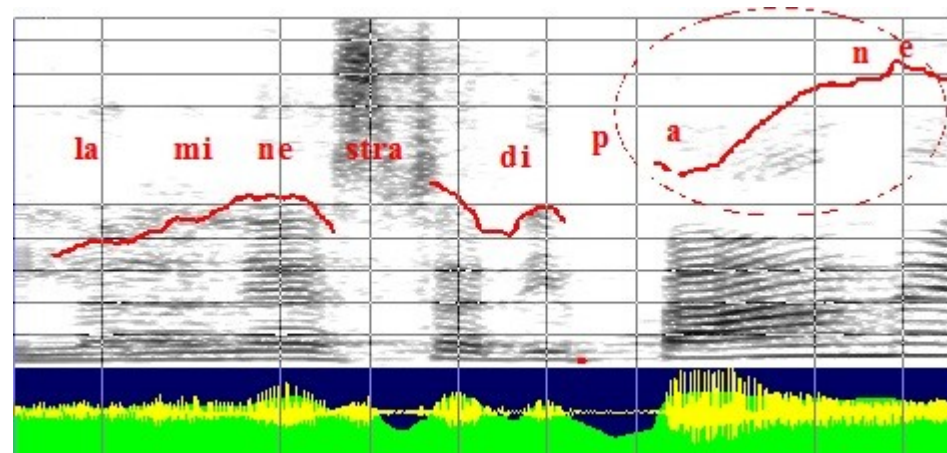


# Intonational form

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- Type 2: rising F0 movement.
  - Rising: on the last tonic syllable and continues in post-tonic syllables;
  - Tonic and post-tonic(s) syllables are lengthened.

(4) \*LUC: *la minestra di pane* /=TOP= *è questa //*

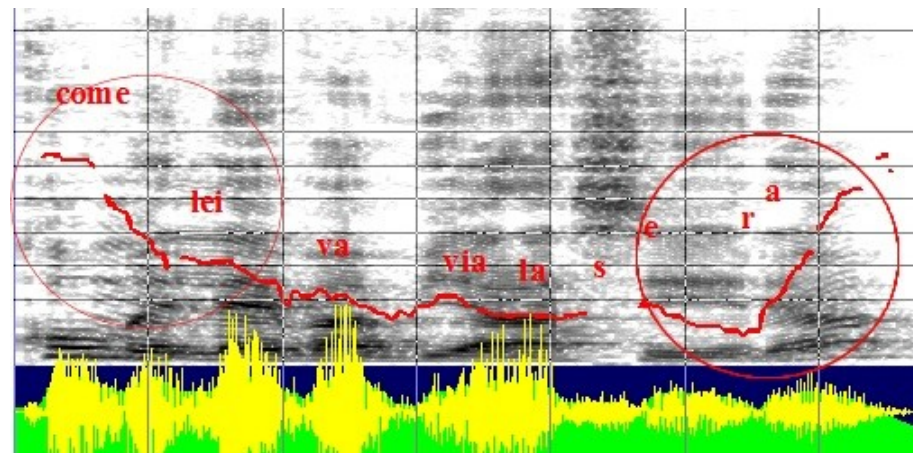


# Intonational form

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- Type 3: two semi-nuclei, falling-(preparation)-rising F0 contour.
  - First: falling F0 movement
  - Second: rising F0 movement, corresponding to the last syllable, whether tonic or post-tonic
  - Last syllable is lengthened
  - Often there is a preparation between the two semi-nuclei

(5) \*CLA: **come lei va via la sera** /=TOP= nell' ascensore 'un c'è più luce //



# Methods

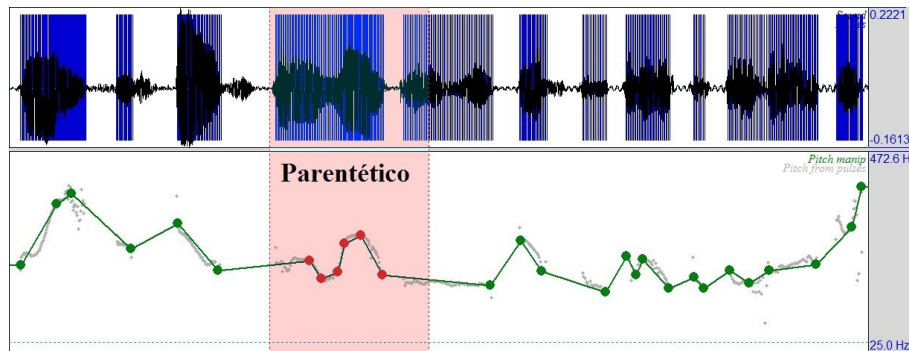
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- Spontaneous speech samples prosodically segmented into utterances (simple and compound)
  - C-ORAL-BRASIL: 20 texts (110 topics)
  - C-ORAL-ROM: 5 texts (72 topics)
- (1) Extraction of F0 values in Hertz; intensity and duration (syllabic and vocalic)
- (2) Stylization of F0 contour and manipulation of prosodic parameters through speech resynthesis for the identification of relevant perceptual movements
- (3) Identification of intonational form types

# Methods

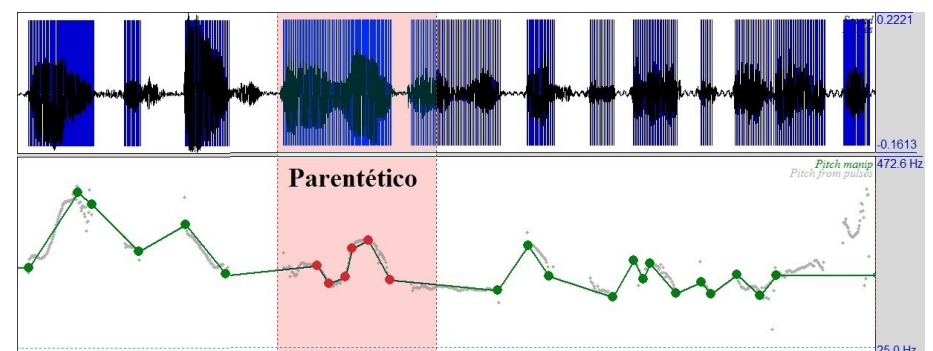
## F0 movements

(6) \*MAR: e estes espaços /=i-TOP= por exemplo /=PAR= em autores como Camilo Castelo Branco /=TOP= ou Garrett / são determinantes para a interpretação /=SCA= &d /=EMP= dos acontecimentos //COM=



TOP 

TOP/COM 



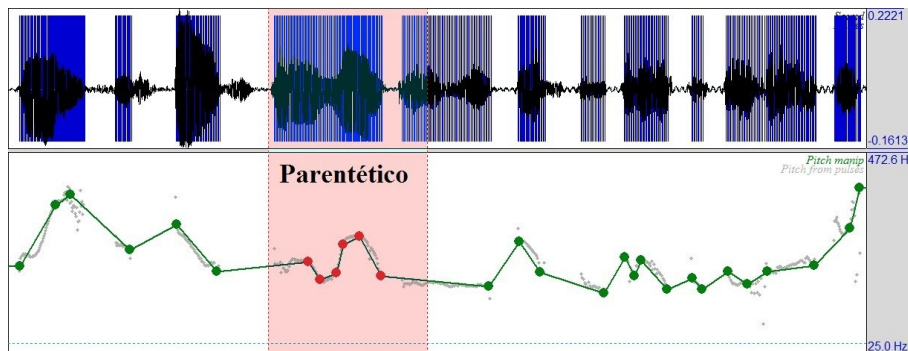
TOP 

TOP/COM 

# Methods

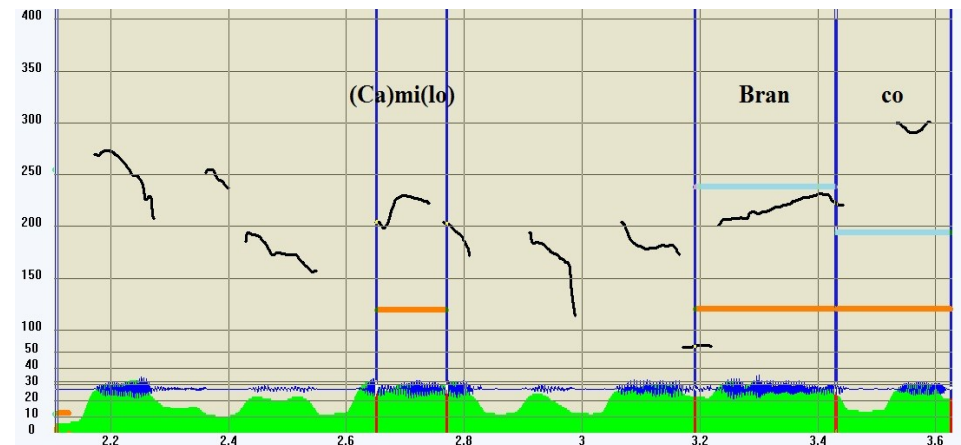
## Duration - tonic and postonic

\*MAR: [27] e estes espaços /=i-TOP= por exemplo /=PAR= em autores como Camilo Castelo Branco /=TOP= ou Garrett / são determinantes para a interpretação /=SCA= &d /=EMP= dos acontecimentos //COM=



TOP 

TOP/COM 



TOP 

TOP/COM 

# Results

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- EP: 4 Intonation forms
- BP: 4 Intonation forms
- Italian: 3 intonational forms

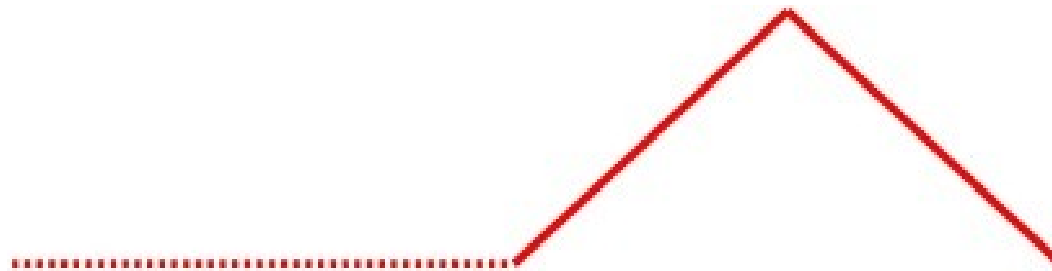
	<b>TOP 1</b>	<b>TOP 2</b>	<b>TOP 3</b>	<b>TOP 4</b>	<b>Total</b>
Italian	58 (55,2%)	25 (23,8%)	22 (21%)	0	105
BP	39 (35%)	52 (47%)	6 (5%)	13 (14%)	110
EP	1 (1,4%)	28 (38,9%)	4 (5,5%)	39 (54,2%)	72



# Results

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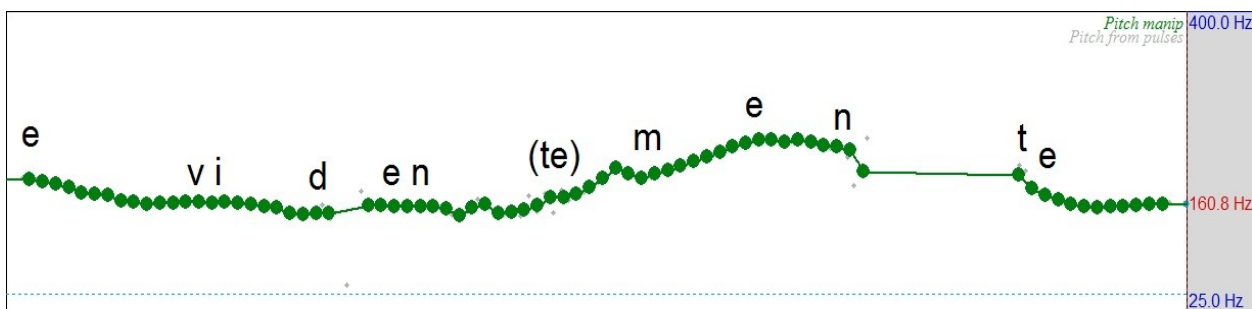
- Type 1: rising-falling F0 movement
  - Rising: on the last tonic syllable
  - Falling: on the post-tonic syllable(s)
  - Tonic and post-tonic(s) syllables are lengthened



Type 1 form of Topic

# Results

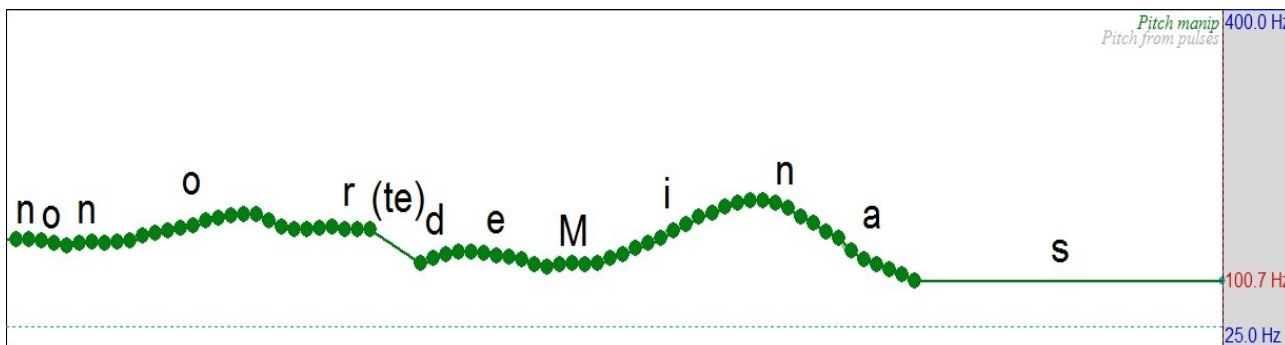
(7) \*LUI: **evidentemente** /=TOP= eles não sentem / não estão bem / com eles / e portanto não se consegue / &me [/1] que eles se sintam bem dentro da aula //



TOP 

TOP/COM 

(8) \*MAI: **no norte de Minas** /=TOP= existia um / &su [/1] meio aparentado com a minha esposa //



TOP 

TOP/COM 

# Results

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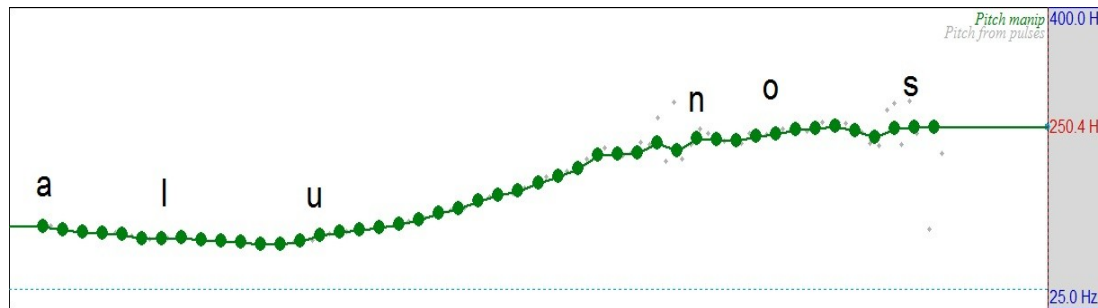
- Type 2: rising F0 movement
  - Rising: on the last tonic syllable and continues in post-tonic syllables
  - Tonic and post-tonic(s) syllables are lengthened



Type 2 form of Topic

# Results

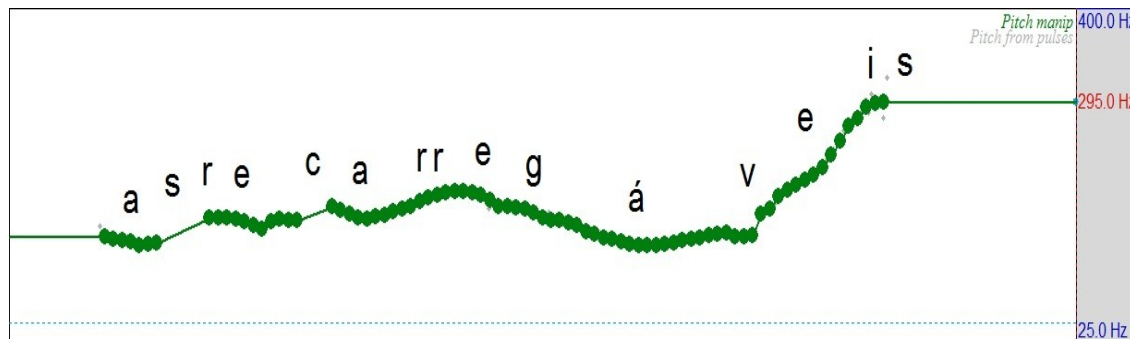
(9) \*JOS: **alunos** /=TOP= que nos temos de preparar / para a vida //



TOP 

TOP/COM 

(10) \*BAL: **as recarregáveis** /=TOP= tão aqui //



TOP 

TOP/COM 

# Results

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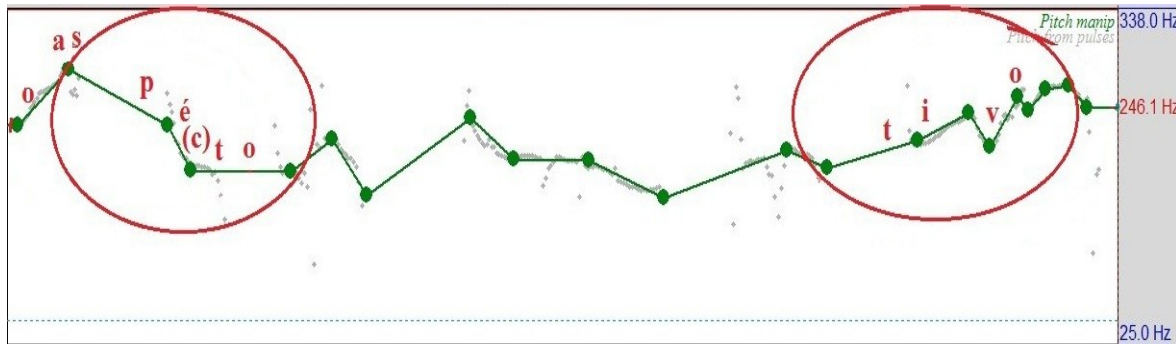
- Type 3: two semi-nuclei, falling-(preparation)-rising F0 contour
  - First: falling F0 movement, corresponding to the first syllable or to the first tonic syllable
  - Second: (BP) rising F0 movement, corresponding to the last syllable / (EP) rising F0 movement, corresponding to the last tonic syllable
  - (BP) Last syllable is lengthened / (EP) Last tonic syllable is lengthened
  - Often there is a preparation between the two semi-nuclei



Type 3 form of Topic

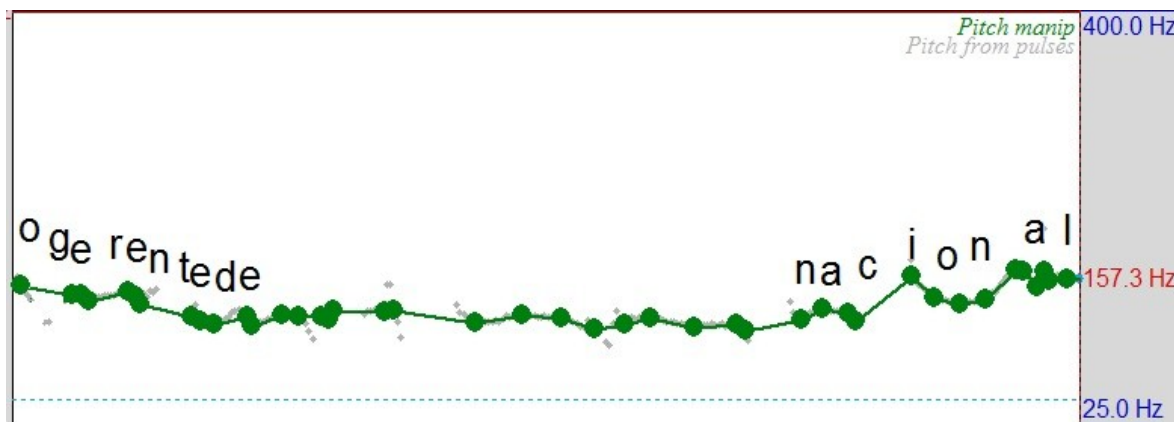
# Results

(11) \*MAR: e / o aspecto dito claramente durativo /=TOP= é aquele / que / &eh / refere / a relação entre / o discurso do narrador / e / a história //



TOP   
TOP/COM   
Edition 

(12) \*JOR: o gerente de recursos humanos de uma multinacional /=TOP= me informou que havia uma vaga na área comercial da empresa / &he / se eu tinha interesse //



TOP   
TOP/COM   
Edition 

# Results

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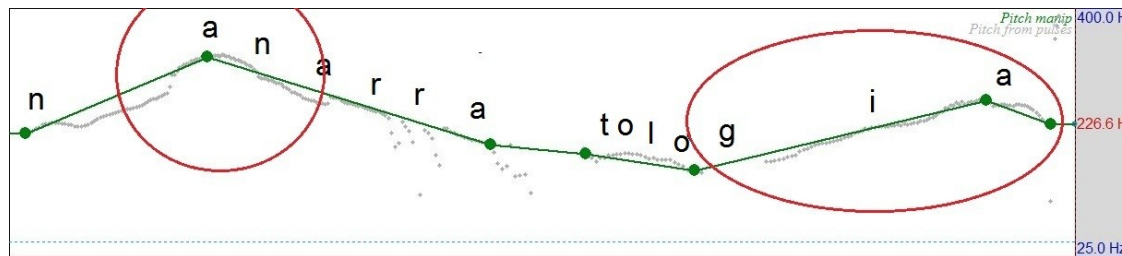
- Type 4: two semi-nuclei, falling-(preparation)-falling/flat/rising F0 contour
  - First: extra high onset on the first tonic syllable or in one of the first syllables of the topic
  - Second: lengthening of the last tonic syllable and three possible F0 movements: rising, falling or flat. When there's a rising F0 movement, the lengthening seems to be less relevant to the interpretation of the topic. When there's a falling or a flat F0 movement, the lengthening seems to be more important.
  - In EP, the second semi nucleus can be preceded by a preparation portion.



Type 4 form of Topic

# Results

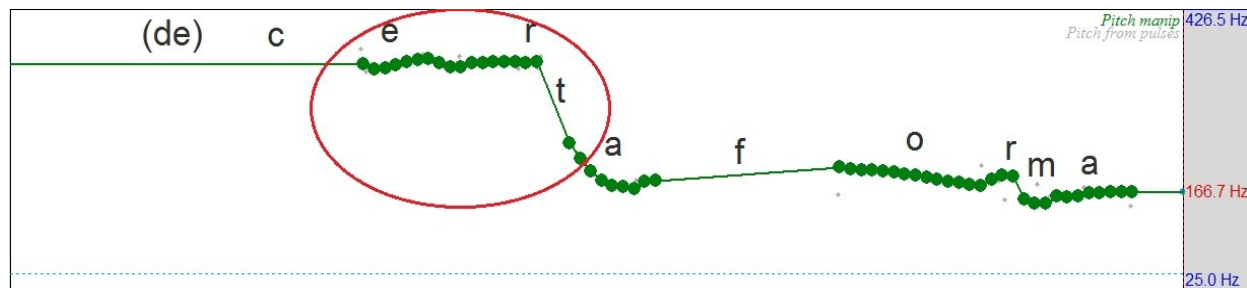
(13) \*MAR: designa-se / **na narratologia** /=TOP= no estudo da narrativa / pausa ||=COM=



TOP 

TOP/COM 

(14) \*BAL: porque / &he / **de certa forma** /=TOP= a bancada evangélica / eles tão / muito contra /=COM= essa coisa / né //



TOP 

TOP/COM 



# Conclusions

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- EP and BP present a Topic intonational form that does not exist in Italian
- An interesting question raised by these findings regards the possible relation between intonational form and:
  - the Topic semantic/pragmatic meaning
  - the illocution conveyed in the Comment

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Thank you!