

PRAAT ON THE WEB

AN UPGRADE OF PRAAT FOR SEMI-AUTOMATIC
SPEECH ANNOTATION



SUMMARY

1. Motivation

2. Praat Software & Format

3. Extended Praat

4. Prosody Tagger

5. Demo

6. Conclusions

“What’s the story behind?”



Annotation of Big Data

- Prosodic Phrase

Segmentation

- Prominence

Salient Word

Acoustic and Linguistic Information

Theoretical Work:

- Correlation Information Structure and Prosody
(Domínguez et al., 2014a)
- Prosody as a Vectorial Representation of
Acoustic Parameters (Domínguez et al., 2014b)

1. MOTIVATION (I)

Aim

Tools for Annotation of Spontaneous Speech
Semi-Automatic Approaches

Focus

Visualization
Scripting

Object



Question

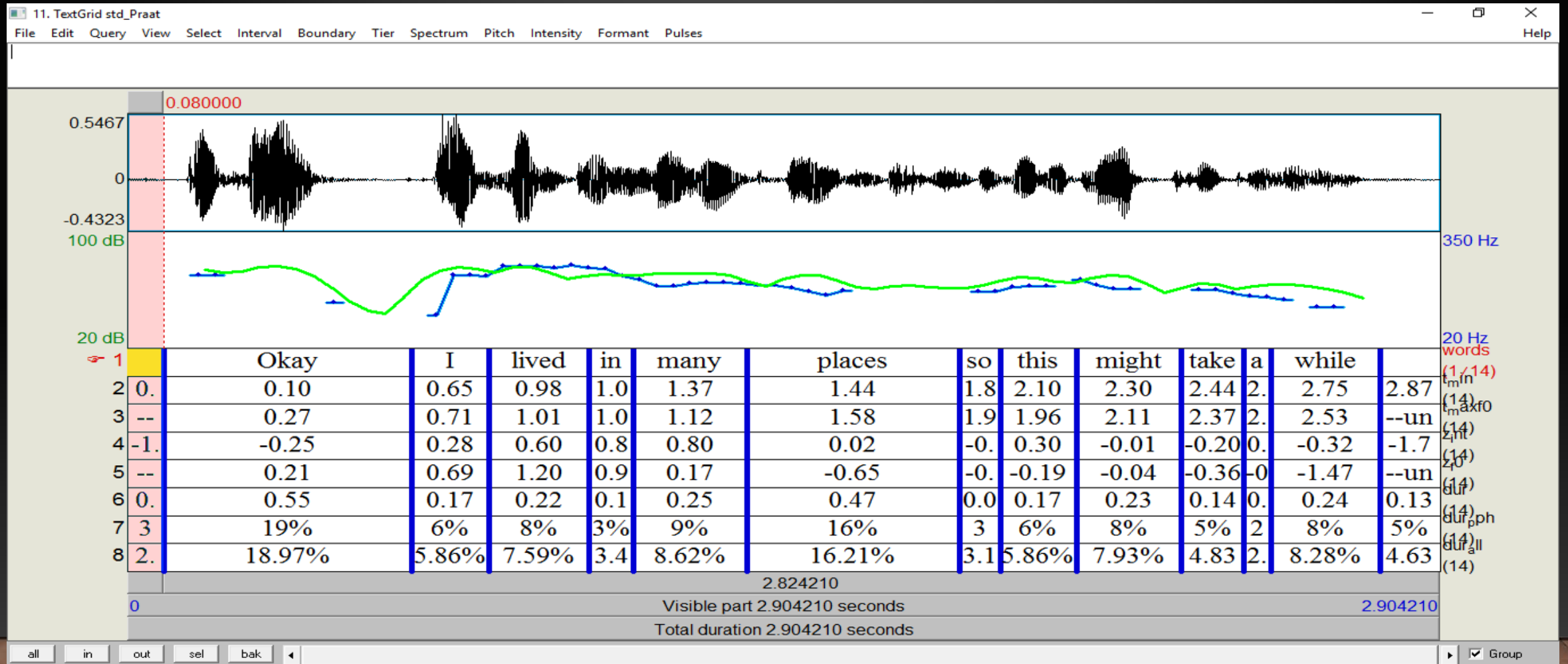
How do we deal with ...

...feature annotation?

...complex computational processes?

1. MOTIVATION (II)

Feature Annotation



1. MOTIVATION (III)

Scripting



ProsodyPro (Xu, 2013)

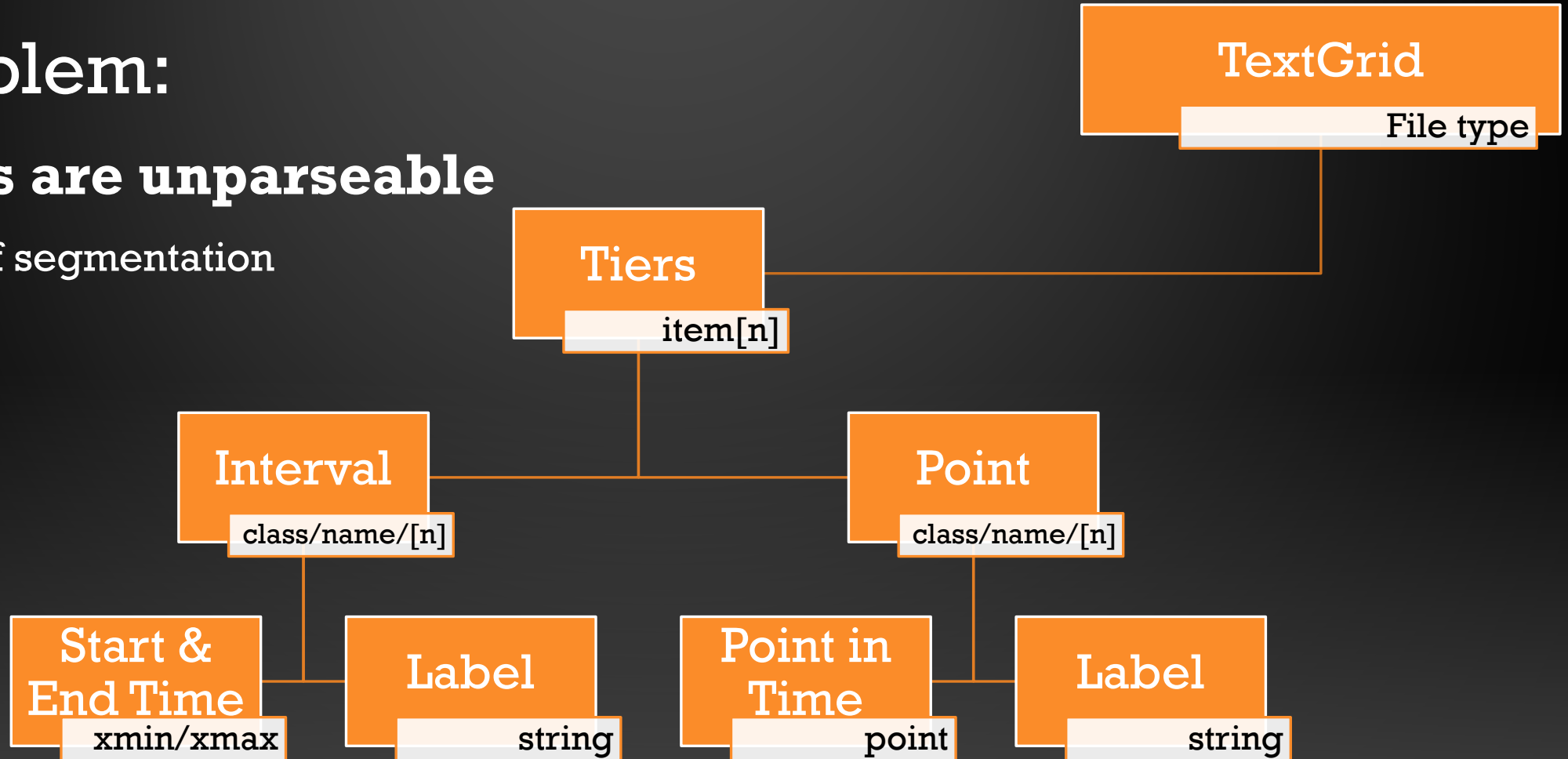
Praaline (Christoulides, 2014)

2. PRAAT SOFTWARE AND FORMAT (I)

The Problem:

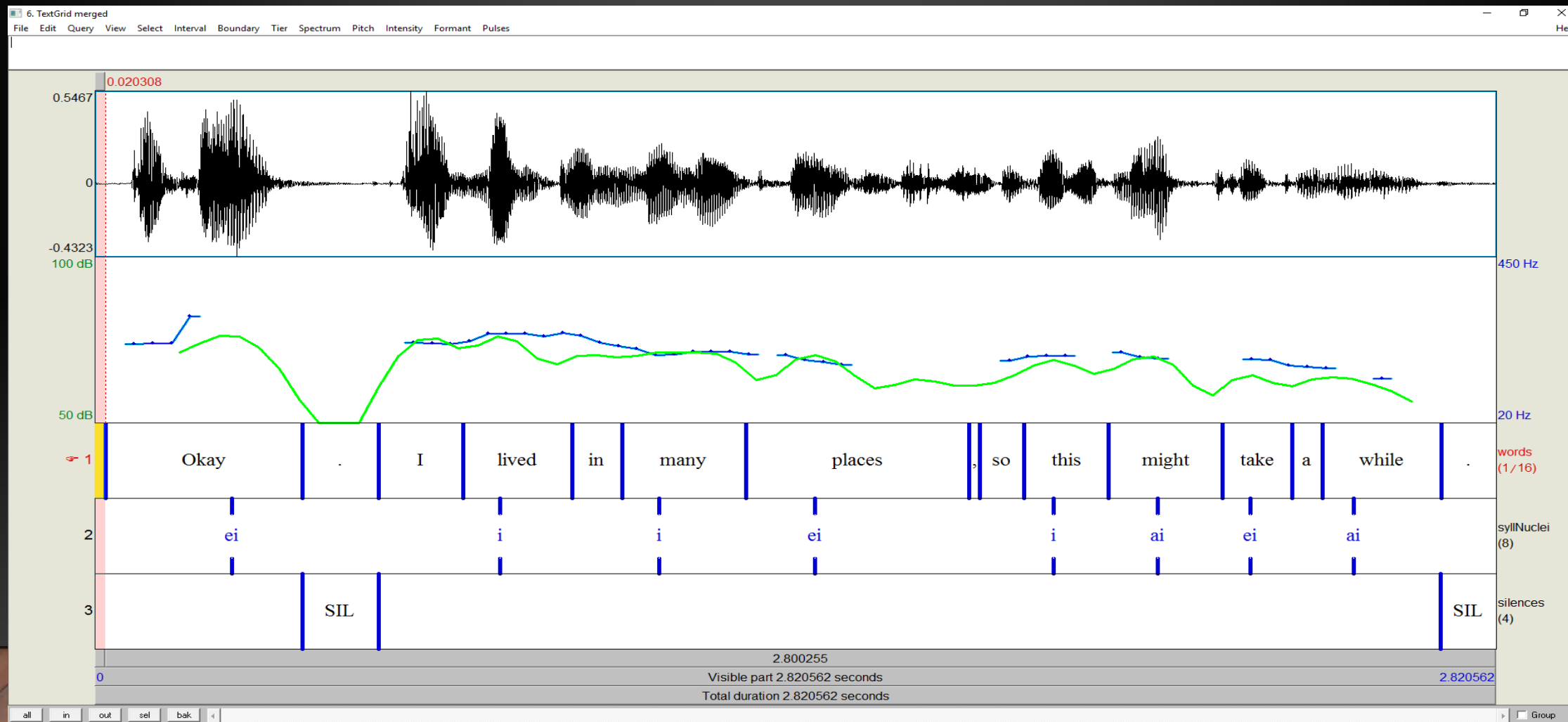
- **Labels are unparseable**

Units of segmentation



2. PRAAT SOFTWARE AND FORMAT (II)

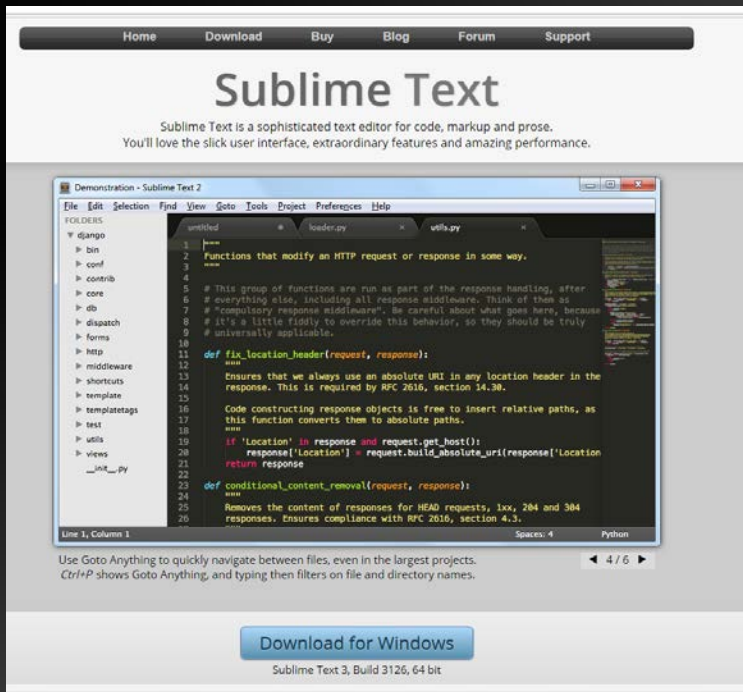
Example Praat (Boersma, 2001) Graphical User Interface



2. PRAAT SOFTWARE AND FORMAT (III)

TextGrid in text editor

Sublime



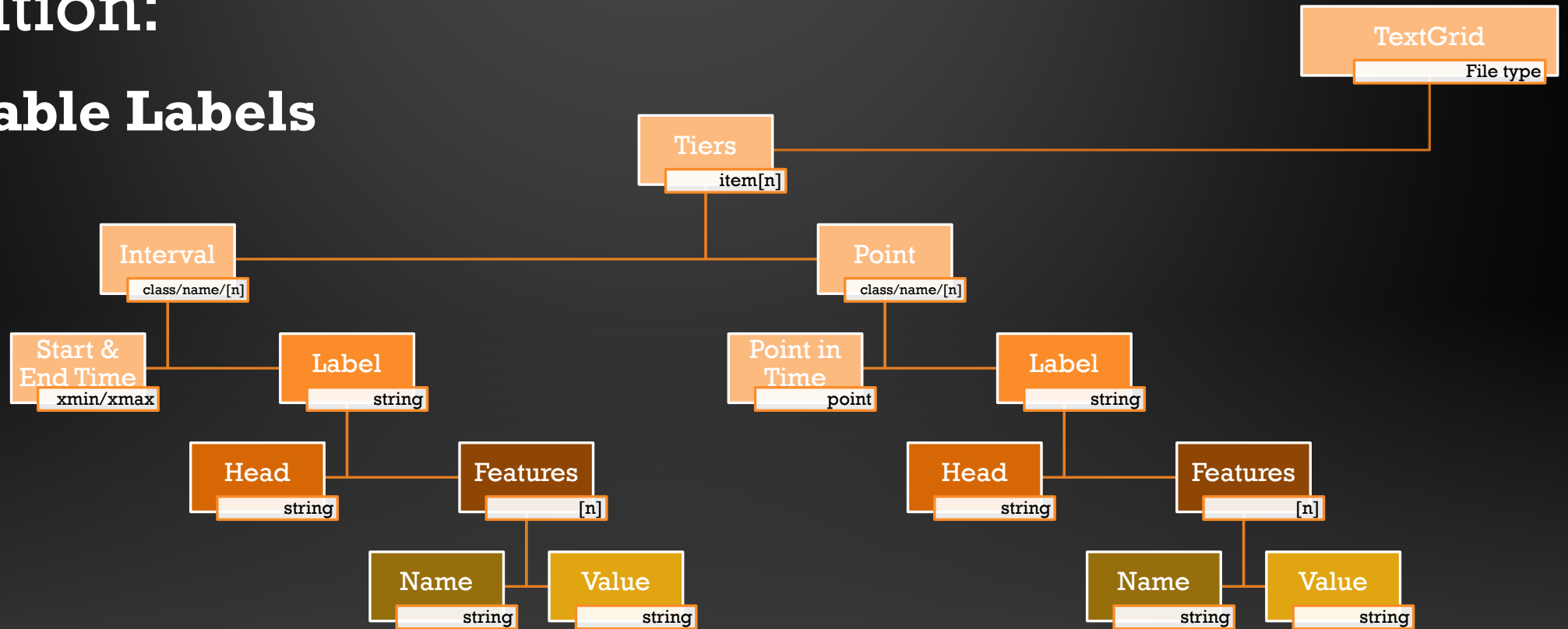
```
C:\Users\UPF\Desktop\vis_pros_presentation\spk5f_xs01_ex01.TextGrid - Sublime Text 2 (UNREGISTERED)
File Edit Selection Find View Goto Tools Project Preferences Help

spk5f_xs01_ex01.TextGrid x
1 File type = "ooTextFile"
2 Object class = "TextGrid"
3
4 xmin = 0
5 xmax = 2.8205625
6 tiers? <exists>
7 size = 3
8 item []:
9   item [1]:
10     class = "IntervalTier"
11     name = "words"
12     xmin = 0
13     xmax = 2.820555413061734
14     intervals: size = 16
15     intervals [1]:
16       xmin = 0
17       xmax = 0.02030785292857954
18       text = ""
19     intervals [2]:
20       xmin = 0.02030785292857954
21       xmax = 0.4175250715272297
22       text = "Okay"
23     intervals [3]:
24       xmin = 0.4175250715272297
25       xmax = 0.5703078529285796
26       text = "."
27     intervals [4]:
28       xmin = 0.5703078529285796
29       xmax = 0.7403078529285796
30       text = "I"
31     intervals [5]:
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635     intervals [156]:
636      xmin = 0.7403078529285796
637      xmax = 0.7403078529285796
638      text = ""
639     intervals [157]:
640      xmin = 0.7403078529285796
641      xmax = 0.7403078529285796
642      text = ""
643     intervals [158]:
644      xmin = 0.7403078529285796
645      xmax = 0.7403078529285796
646      text = ""
647     intervals [159]:
648      xmin = 0.7403078529285796
649      xmax = 0.7403078529285796
650      text = ""
651     intervals [160]:
652      xmin = 0.7403078529285796
653      xmax = 0.7403078529285796
654      text = ""
655     intervals [161]:
656      xmin = 0.7403078529285796
657      xmax = 0.7403078529285796
658      text = ""
659     intervals [162]:
660      xmin = 0.7403078529285796
661      xmax = 0.7403078529285796
662      text = ""
663     intervals [163]:
664      xmin = 0.7403078529285796
665      xmax = 0.7403078529285796
666      text = ""
667     intervals [164]:
668      xmin = 0.7403078529285796
669      xmax = 0.7403078529285796
670      text = ""
671     intervals [165]:
672      xmin = 0.7403078529285796
673      xmax = 0.7403078529285796
674      text = ""
675     intervals [166]:
676      xmin = 0.7403078529285796
677      xmax = 0.7403078529285796
678      text = ""
679     intervals [167]:
680      xmin = 0.7403078529285796
681      xmax = 0.7403078529285796
682      text = ""
683     intervals [168]:
684      xmin = 0.7403078529285796
685      xmax = 0.7403078529285796
686      text = ""
687     intervals [169]:
688      xmin = 0.7403078529285796
689      xmax = 0.7403078529285796
690      text = ""
691     intervals [170]:
692      xmin = 0.74030785292
```

3. EXTENDED PRAAT (I)

The Solution:

- **Parseable Labels**



3. EXTENDED PRAAT (II)

Extended Praat for Feature Annotation

(Domínguez, et al. 2016d)

- Local Version for Linux

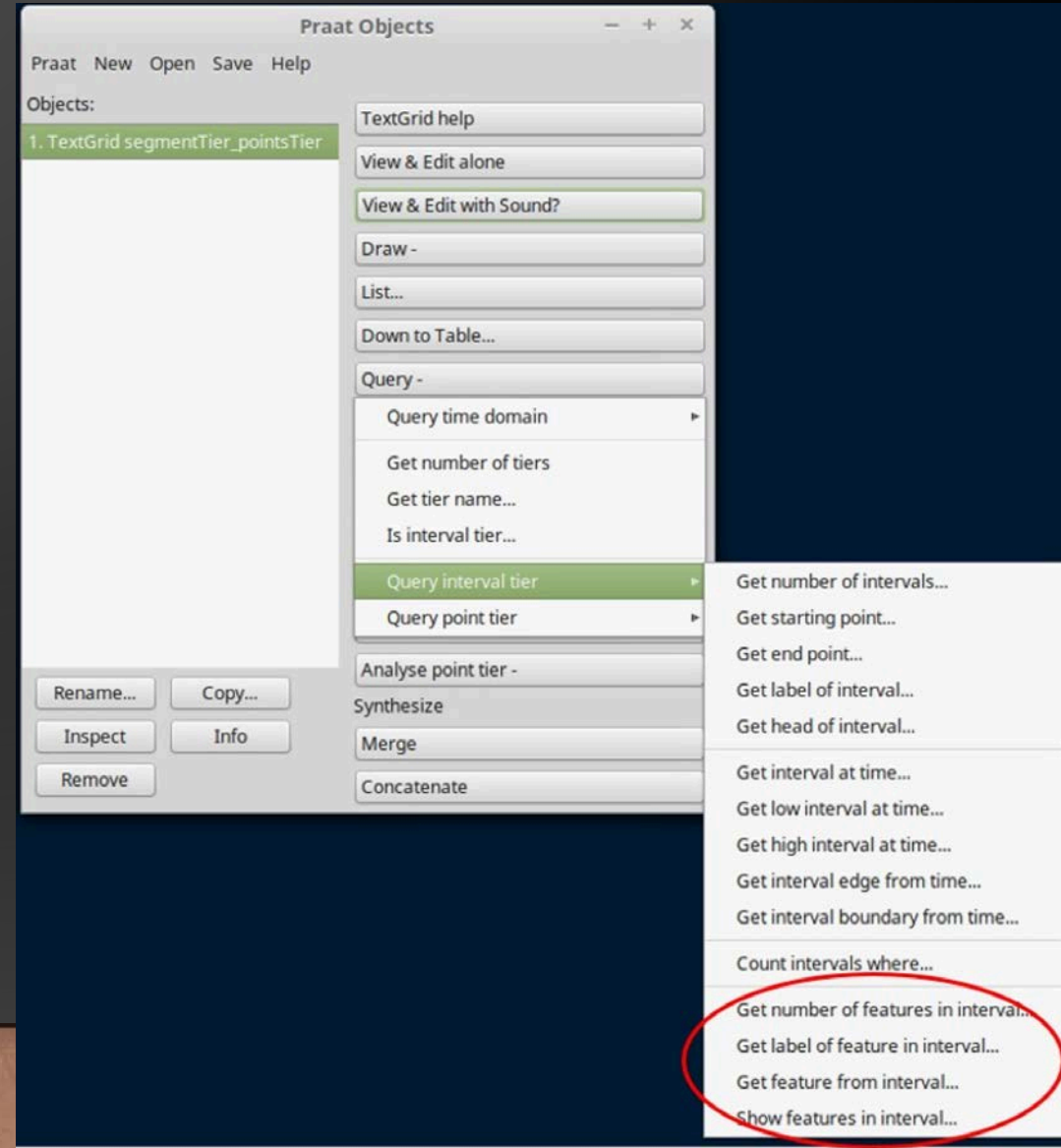
<https://github.com/monikaUPF>

- Web Version

<http://kristina.taln.upf.edu/praatweb/>

Tutorial

<https://www.youtube.com/watch?v=sjXu15Dskjs>

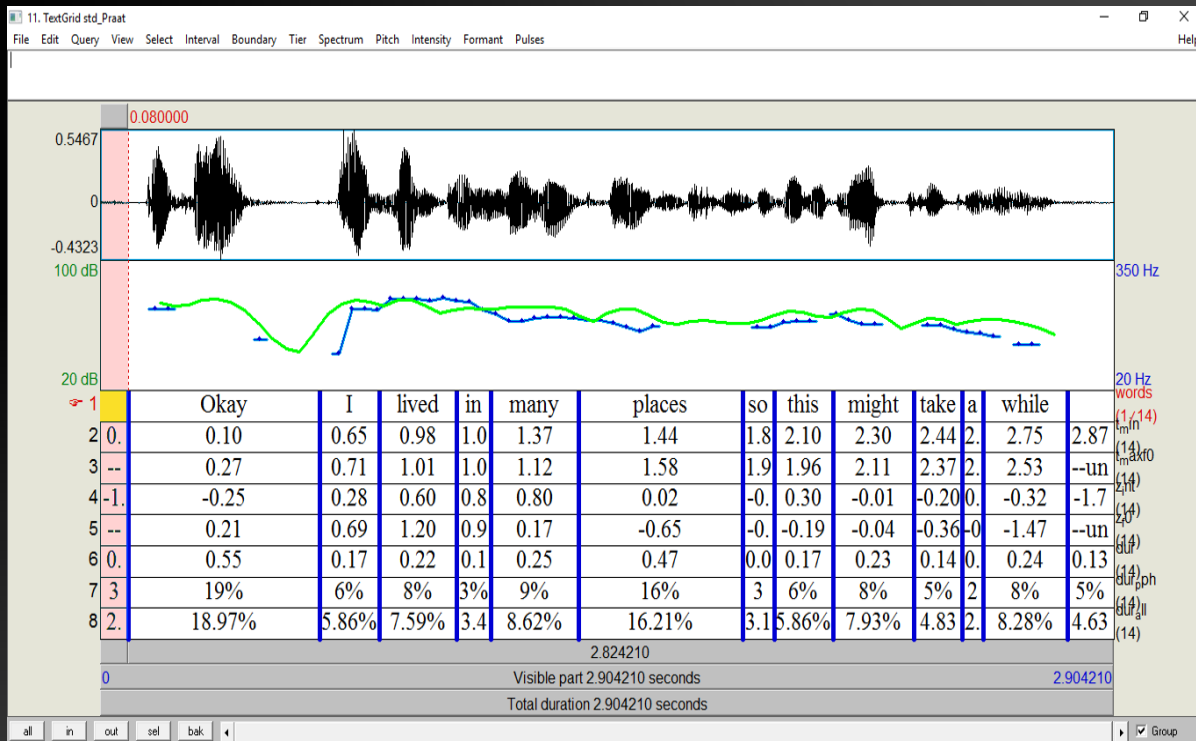


3. EXTENDED PRAAT (III)

Advantage 1: Visualization

- Visualization Standard Praat

- Visualization Praat on the Web



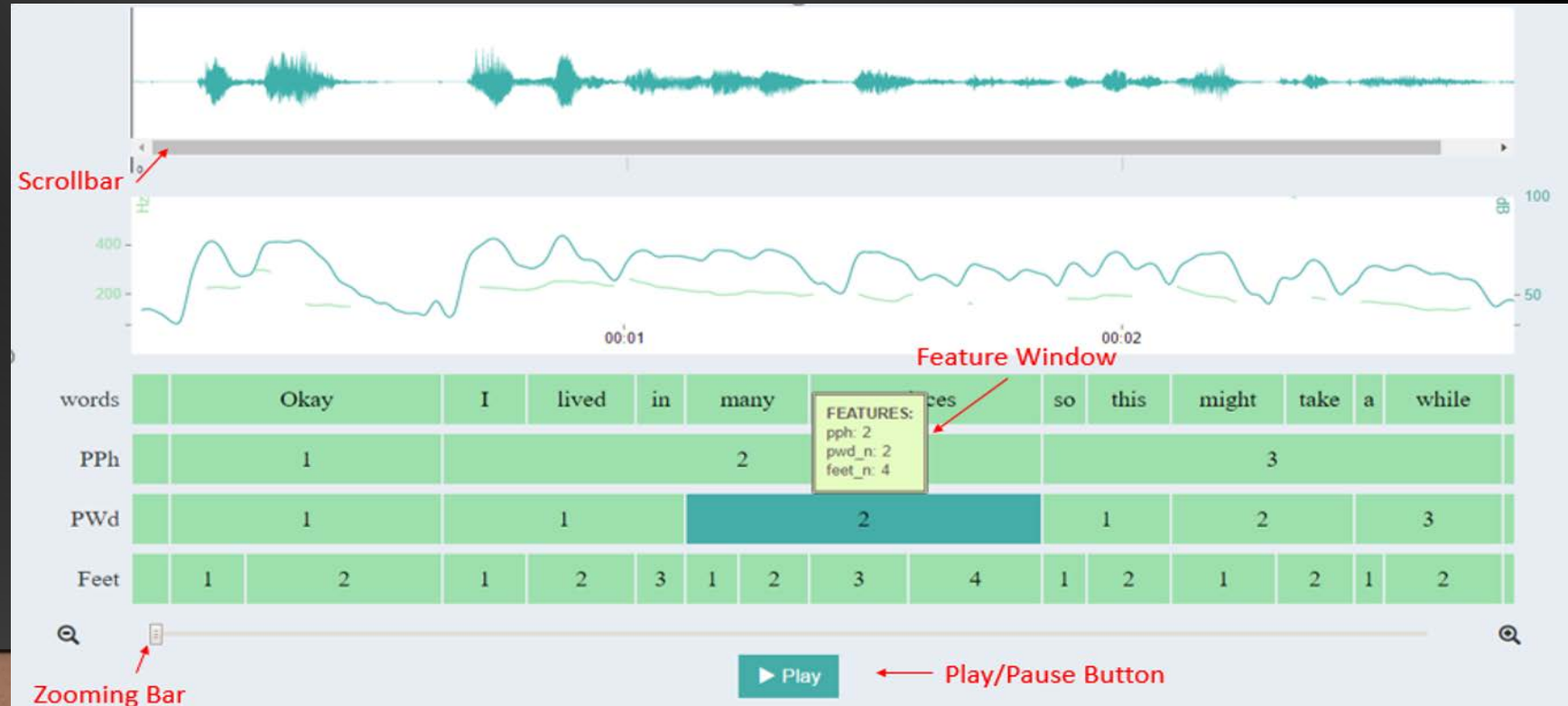
3. EXTENDED PRAAT (III)

Advantage 2: Intuitive GUI

- Standard Praat
 - Keyboard Shortcuts
 - Zooming
 - Audio playback
 - Scrolling

- Praat on the Web

Dedicated buttons



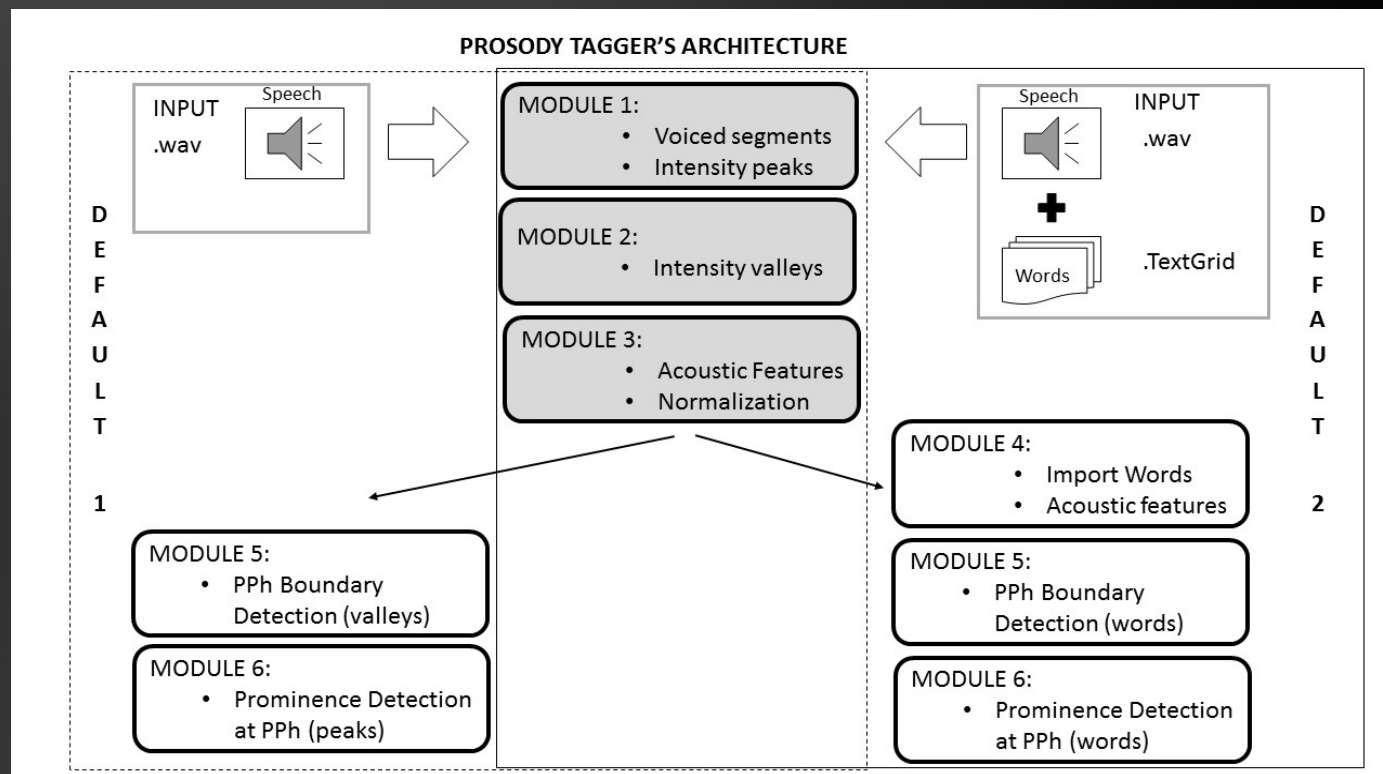
3. EXTENDED PRAAT (IV)

Advantage 3: Scripting Composition

Features allow

storing information for :

- Data analysis
- Retrieval for **computation** at different stages
 - Segmentation of a complex computational problem into **specialized / dedicated steps**
 - Within the same Praat Environment



4. PROSODY TAGGER (I)



- Related Work
- Methodology
- Implementation
- Evaluation
- Future Work

(Domínguez, et al. 2016c)

- Language and register independant
- Raw input: suitable for spontaneous speech analysis
- No previous installation



<http://kristina-project.eu/en/>

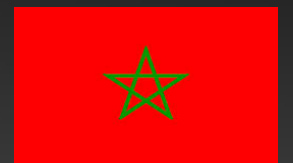
AuToBI (Rosenberg, 2010)

<http://eniac.cs.qc.cuny.edu/andrew/autobi/>



ANALOR (Avanzi et al., 2008)

<http://www.lattice.cnrs.fr/Analor.html?lang=fr>



4. PROSODY TAGGER (II)

- Multiple configurations

Select a pipeline configuration:

Word Segments Click on selection Raw Speech

Select a pipeline configuration:

Word Segments Click on selection **Raw Speech**

Selected modules

- Module 1: Intensity peak detection
- Module 2: Intensity valley detection
- Module 3: Feature annotation
- Module 4: Word segment export
- Module 5: PPh boundary detection (word segments)
- Module 6: PPh prominence detection (word segments)

Selected modules

- Module 1: Intensity peak detection
- Module 2: Intensity valley detection
- Module 3: Feature annotation
- Module 5: PPh boundary detection (raw speech)
- Module 6: PPh prominence detection (raw speech)

4. PROSODY TAGGER (III)

- Output
 - Praat on the Web
 - TextGrid for Local Use

Upload your audio file or select a sample file:

Seleccionar archivo Ningún archivo seleccionado

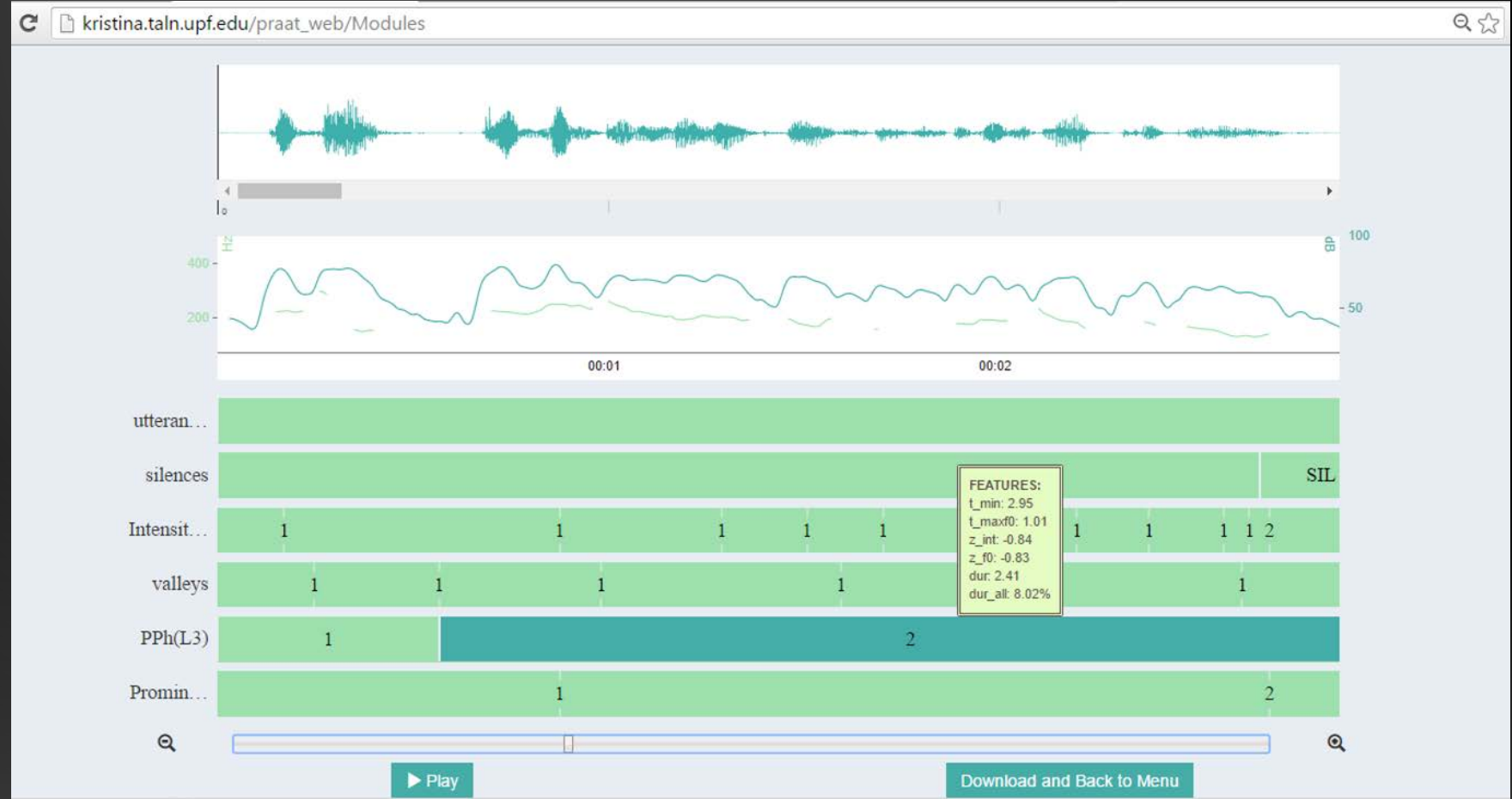
AS01: Audio Sample 01

Select a pipeline configuration:

Word Segments Click on selection **Raw Speech**

Select visualization mode:

Only predicted tiers

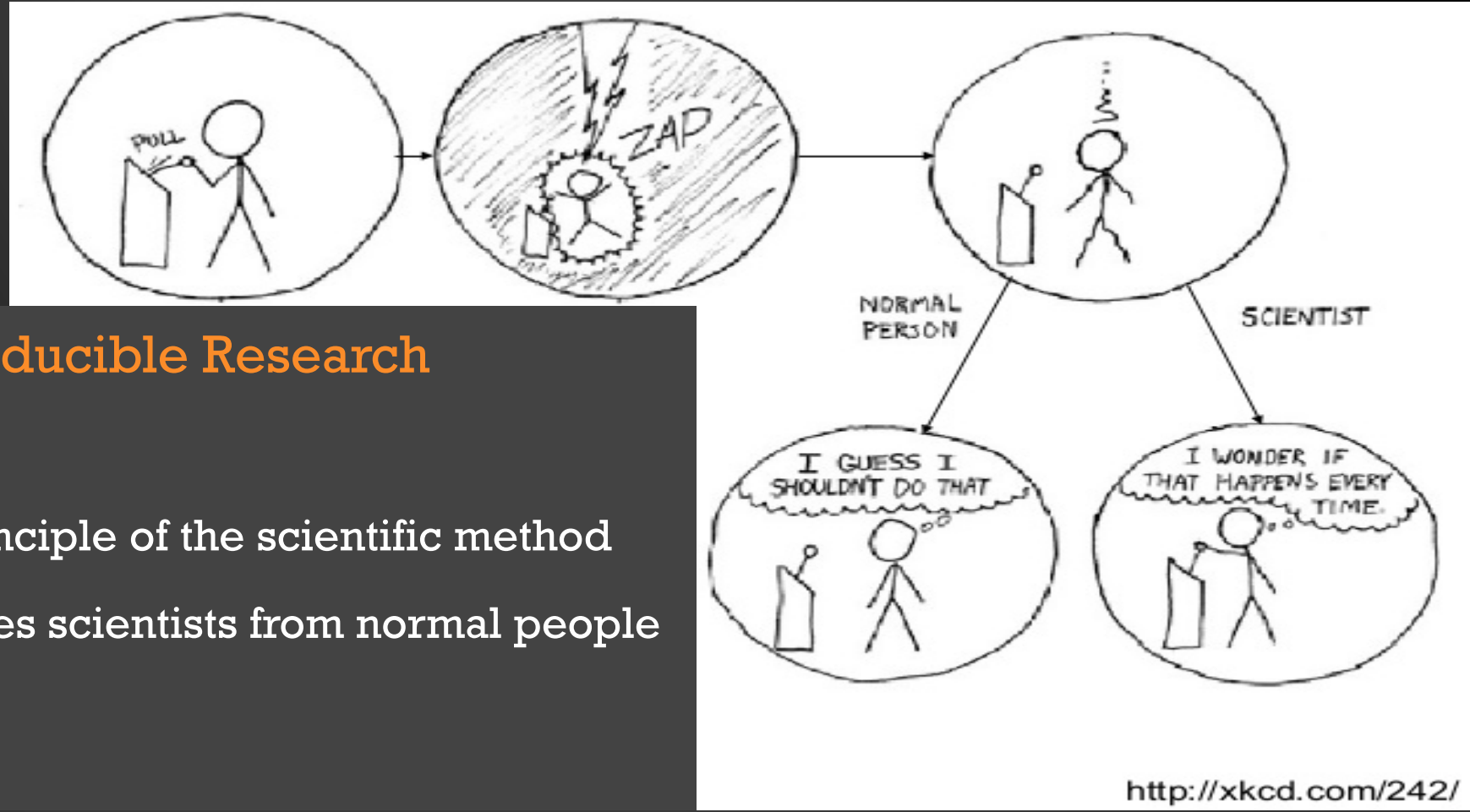


5. DEMO

Praat on the
Web



6. CONCLUSIONS (I)



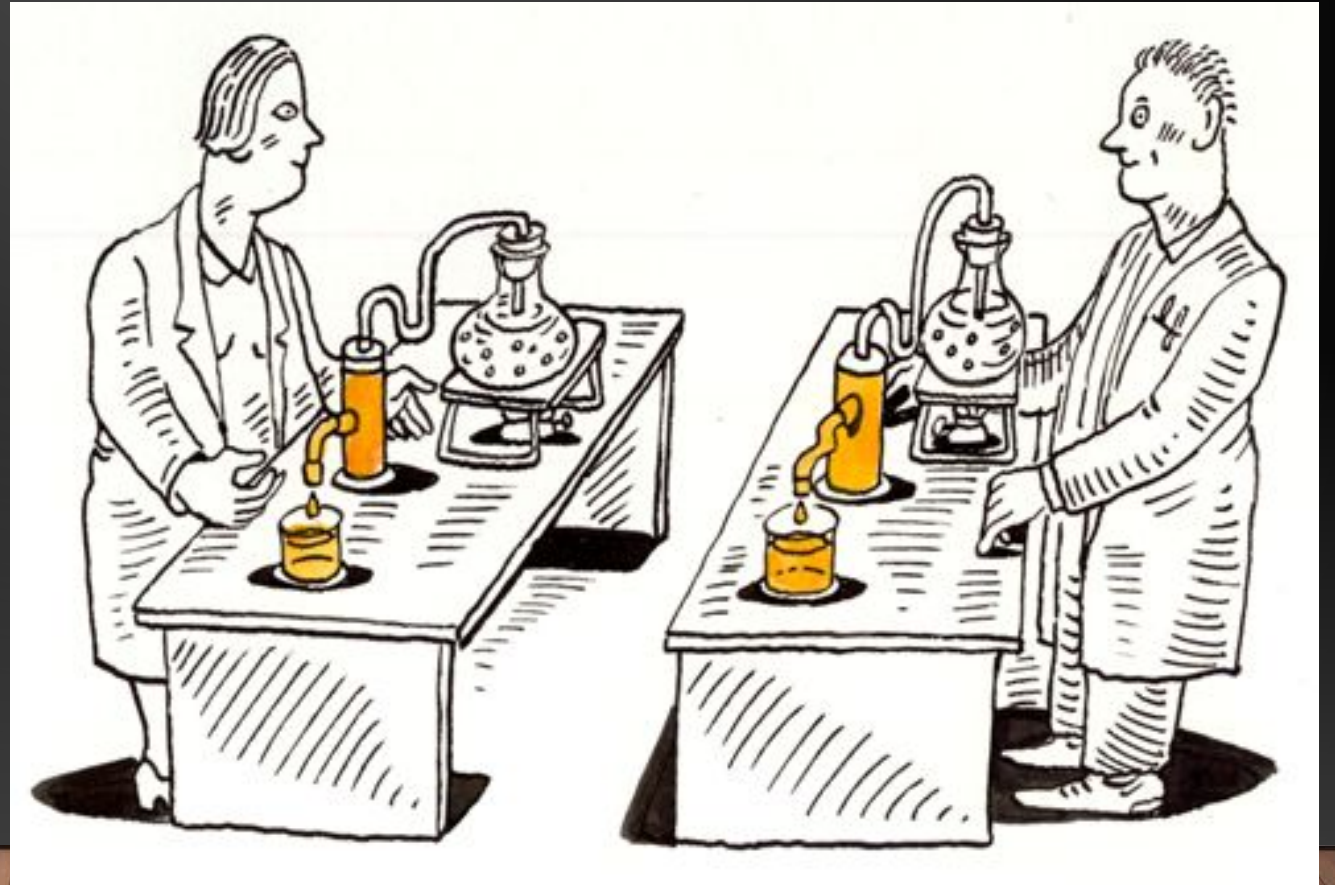
Integrative and Reproducible Research

- Reproducibility as a principle of the scientific method
- Reproducibility separates scientists from normal people

4. CONCLUSIONS (II)

Advantages of Specialized Modules

- Testing different techniques for the same process
- Different configurations
- Optimization of modules
- Task assignment
- Library of scripts
- Impact on reproducibility



6. CONCLUSIONS (III)

Praat on the Web

- Multidimensional **Feature Vector** within segment labels
 - VISUALIZATION in a dedicated window
- **Web-based** Implementation
 - Ready-to-use Interface
- Operational Interface for **Modular Script Composition**
 - Modular Computational Tasks within Praat Platform





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Engineering and Information
and Communication Technologies
Academic Coordination Unit



<https://portal.upf.edu/web/mdm-dtic/home>

THANK YOU !

Acknowledgements:

Iván Latorre
Joan Codina
Mireia Farrús
Leo Wanner
Aurelio Ruiz

Open Demopage & Source Code:

<http://kristina.taln.upf.edu/praatweb/>
<https://github.com/monikaUPF>

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REFERENCES

- **Y. Xu. 2013.** “Prosodypro a tool for large-scale systematic prosody analysis”. In *Proceedings of Tools and Resources for the Analysis of Speech Prosody (TRASP)*, pages 7–10, Aix-en-Provence, France.
- **G. Christodoulides. 2014.** “Praaline: Integrating tools for speech corpus research”. In *Proceedings of the 9th International Conference on Language Resources and Evaluation*, Reykjavik, Iceland.
- **P. Boersma. 2001.** “Praat, a system for doing phonetics by computer”. *Glott International*, 5(9/10):341–345.
- **G. Tsatsaronis, I. Varlamis, and K. Nørvag. 2012.** “Semafor: Semantic document indexing using semantic forests”. In *Proceedings of the 21st ACM International Conference on Information and Knowledge Management, CIKM’12*, pages 1692–1696, New York, NY, USA. ACM.
- **P. Stenetorp, S. Pyysalo, G. Topić, T. Ohta, S. Ananiadou, and J. Tsujii. 2012.** “Brat: A web-based Tool for NLP-assisted Text Annotation”. In *Proceedings of the Demonstrations at the 13th Conference of the European Chapter of the Association for Computational Linguistics, EACL ’12*, pages 102–107, Stroudsburg, PA, USA. Association for Computational Linguistics.
- **H. Cunningham, D. Maynard, K. Bontcheva, V. Tablan, N. Aswani, I. Roberts, G. Gorrell, A. Funk, A. Roberts, D. Damljanovic, T. Heitz, M. A. Greenwood, H. Saggion, v Petrak, Y. Li, and W. Peters. 2011.** *Text Processing with GATE (Version 6)*.
- **M. Domínguez, M. Farrús, A. Burga, and L. Wanner. 2016a.** “Using hierarchical information structure for prosody prediction in content-to-speech applications”. In *Proceedings of the 8th International Conference on Speech Prosody*, pages 1019–1023, Boston, USA.
- **M. Domínguez, M. Farrús, and L. Wanner. 2016b.** “Combining acoustic and linguistic features in phrase-oriented prosody prediction”. In *Proceedings of the 8th International Conference on Speech Prosody*, pages 796–800, Boston, USA.
- **M. Domínguez, M. Farrús, and L. Wanner. 2016c.** “An automatic prosody tagger for spontaneous speech”. Accepted in COLING 2016, Osaka, Japan.
- **M. Domínguez, M. Farrús, and L. Wanner. 2016c.** “Praat on the Web: An Upgrade of Praat for Semi-Automatic Speech Annotation”. Accepted in COLING 2016, Osaka, Japan.