

QUANTIFYING MERGING VOWELS

Or why *os* and *ós* rhyme in Girona Catalan

Eva Bosch i Roura

JlPI2015 – February 5th, 2015

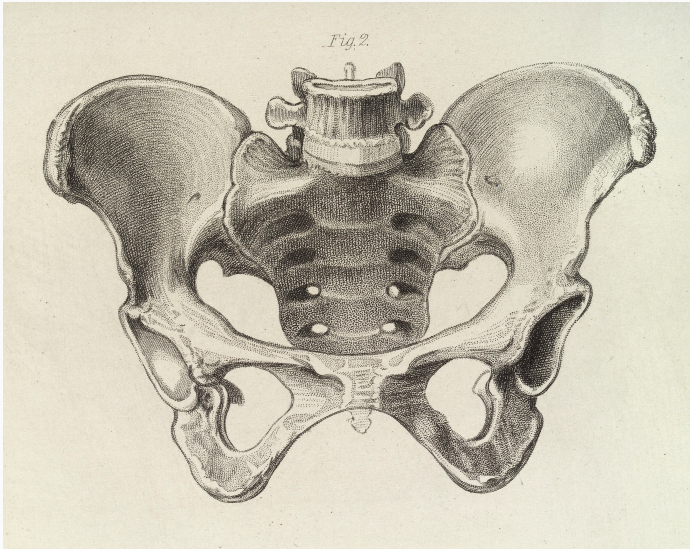
Departament de Filologia Catalana – Universitat de Barcelona

Description and Interpretation of Language Variation:

Phonic and Morphological Aspects
of Catalan and other Romance Languages

(FFI2014-46987-C3-1-P)

AND WHAT IS YOUR THESIS ABOUT?



A THESIS ABOUT VOWELS



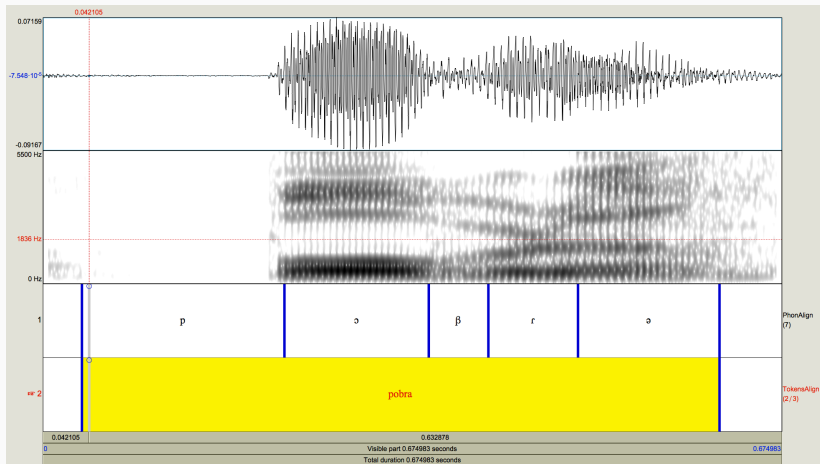
A THESIS ON VOWELS YOU CAN'T DISTINGUISH?

Sociophonetics: the interface of sociolinguistics and phonetics, and specifically (...) the use of **modern phonetic methods** in the quantitative analysis of language variation and change.

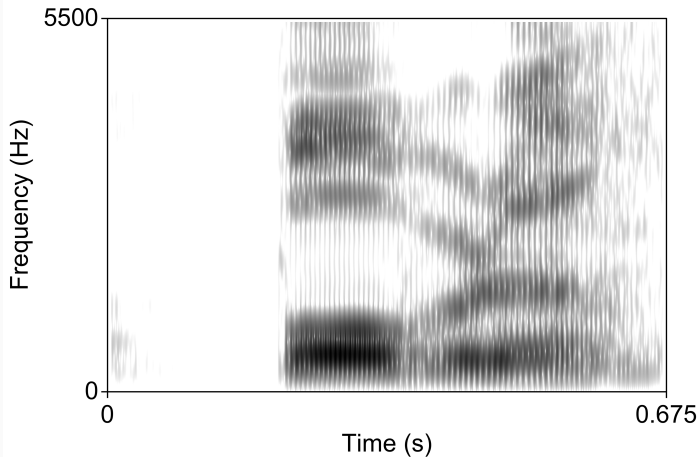
Baranowski, M. (2013). Sociophonetics. Oxford Handbooks Online. Retrieved from <http://www.oxfordhandbooks.com>

WHAT KIND OF METHODS?

SPECTROGRAMS!

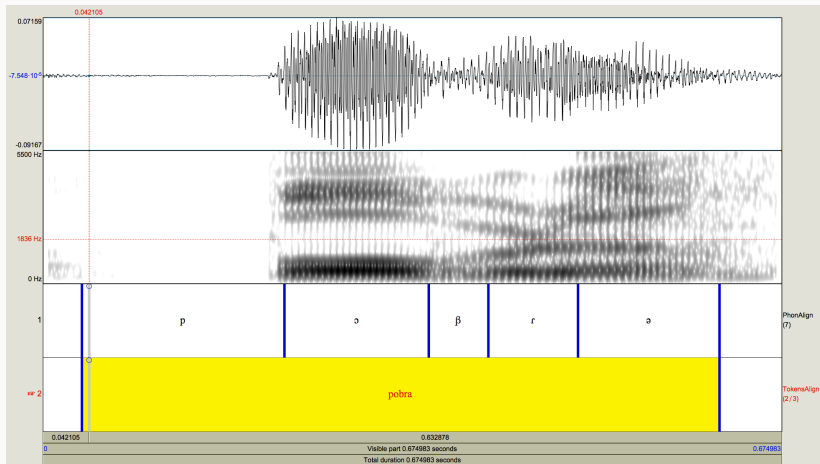


SPECTROGRAMS!

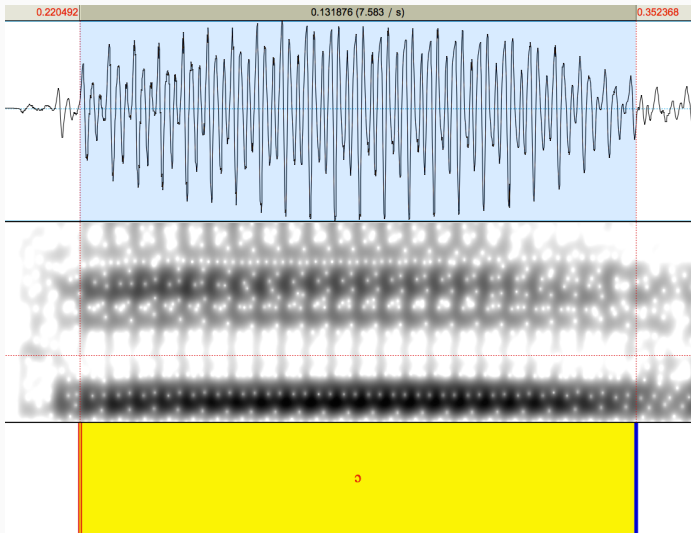


Spectrogram: the representation of a sound signal in terms of the energy (intensity) spread over its frequency components (y) and of the changes that occur over time (x)

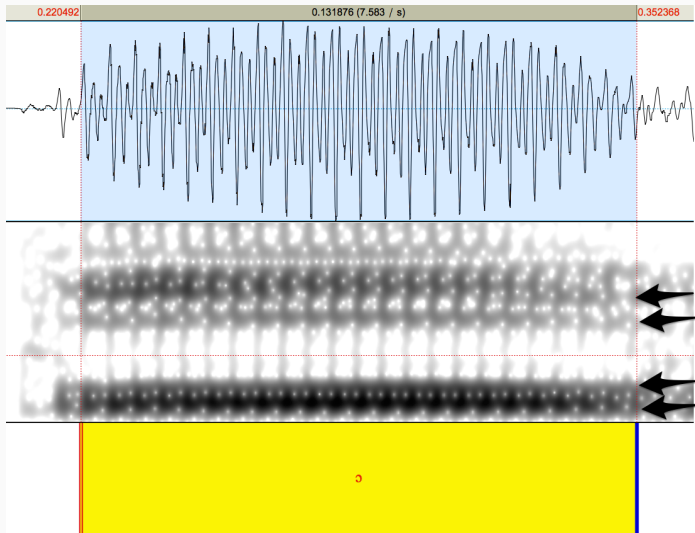
SPECTROGRAMS!



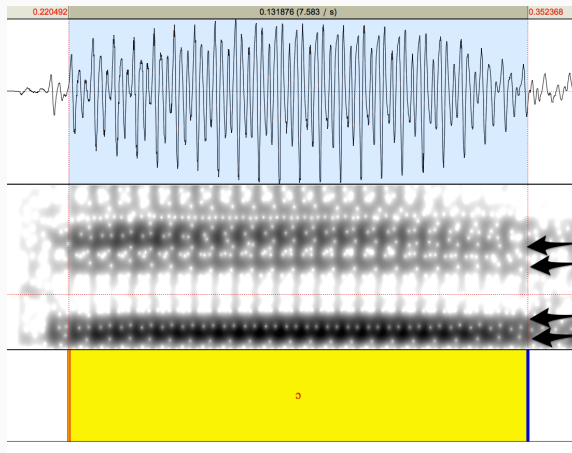
SPECTROGRAMS!



SPECTROGRAMS... AND FORMANTS

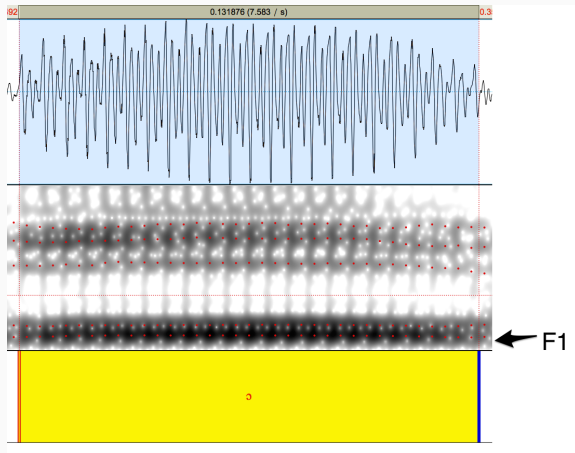


SPECTROGRAMS... AND FORMANTS



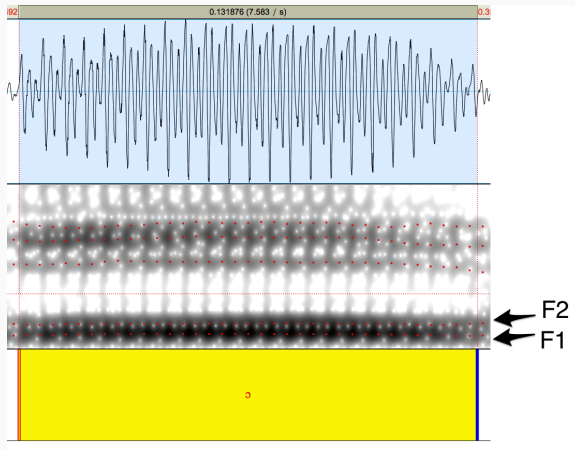
- **Formants:**
peaks of energy

SPECTROGRAMS... AND FORMANTS



- **Formants:**
peaks of energy
- **F1:** opening of
the oral cavity

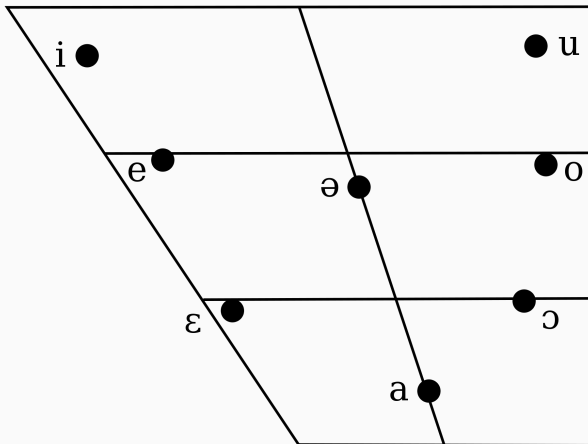
SPECTROGRAMS... AND FORMANTS



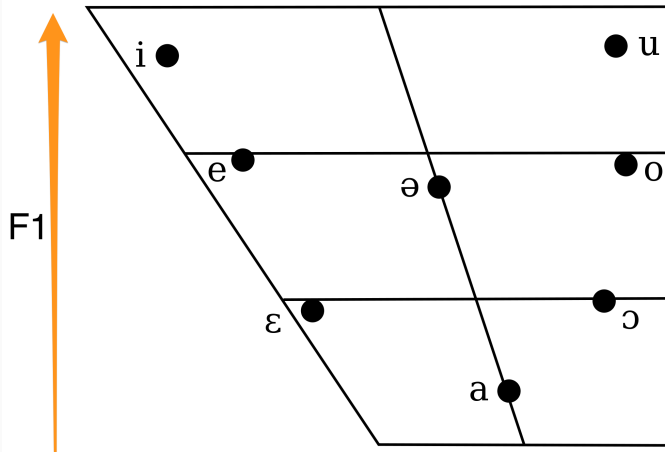
- **Formants:**
peaks of energy
- **F1:** opening of
the oral cavity
- **F2:** backness of
the tongue

AND WHAT DO YOU DO WITH THAT?

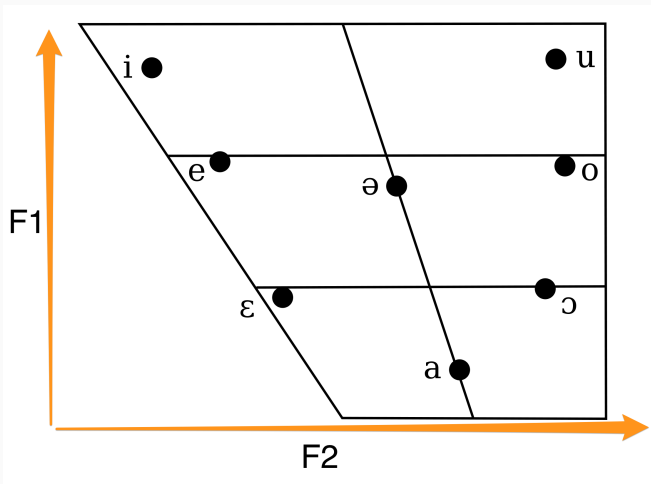
REMEMBER PHONETIC TRANSCRIPTION?



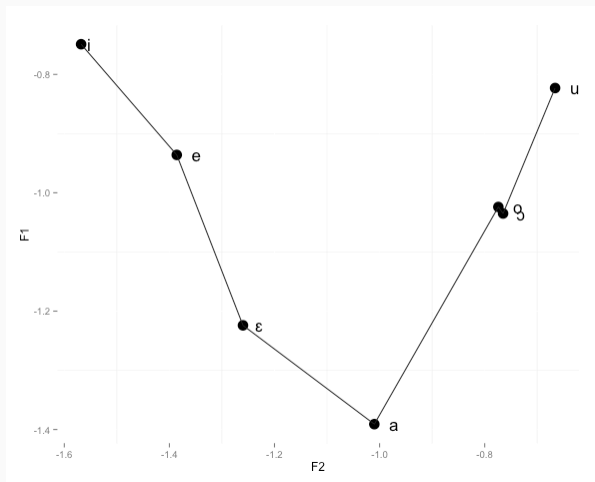
IT'S ALL ABOUT FORMANTS



IT'S ALL ABOUT FORMANTS



VOWEL PLOTS



F1x F2 NEAREY1-normalised mean values of the vowels obtained from speakers in the Ter-Brugent area.

SO... WHAT?!

- Language teaching
- Speech technologies
- Knowledge on speech production and perception
- Language theory

THANK YOU!

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Presentation available at www.ub.edu/GEVAD