

### Contrastive analysis of interlanguage prosody of English as an L2: the case of L1-Spanish and L1-French learners

Leonardo Contreras Roa

#### ▶ To cite this version:

Leonardo Contreras Roa. Contrastive analysis of interlanguage prosody of English as an L2: the case of L1-Spanish and L1-French learners. PAC Prosody 2016, Sep 2016, Aix-en-Provence, France. hal-01762553

HAL Id: hal-01762553

https://hal.science/hal-01762553

Submitted on 10 Apr 2018

**HAL** is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L'archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d'enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.

# Contrastive analysis of interlanguage prosody of English as an L2:

## the case of L1-Spanish and L1-French learners



## Leonardo Contreras Roa

### Introduction

The present is an exploratory study dealing with the phonetic realization (f0, dur) of focused lexical elements produced by native speakers of English and learners of English whose L1 is Chilean Spanish or French.

#### Objectives

- Describing the f0 movements in focused elements produced by the three groups of speakers
- . Comparing the duration and f0 movement differences between speakers of different groups
- Determining if differences and similarities in f0 and duration depend on the speakers' L1

#### Hypotheses

- Speakers belonging to different L1 groups will perform focus in different ways at a f0 and duration level
- H<sub>2</sub> Differences originate from influence of the speakers' L1

## Methodology

Elicitation tests (Prieto et al., 2010) were applied to learners (10 L1-Spanish and 10 L1-French) and native speakers (5 speakers of Southern British English), in order to obtain samples of semi-spontaneous speech.

Recordings of 9 types of utterances containing focused elements were selected (contrastive focus, contradiction statement, statement of the obvious, neutral echoquestions and counterexpectational echo-questions), totalling a corpus of 225 utterances.

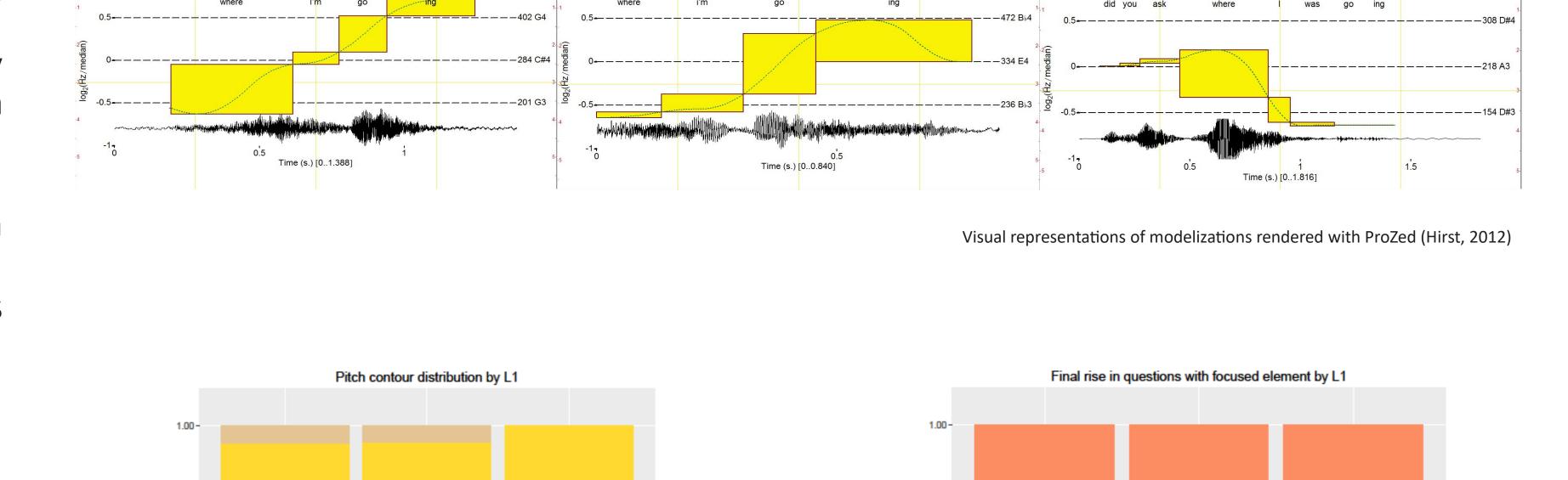
Utterances were transcribed and syllabified, then modelized with the Momel algorithm (Hirst & Espesser, 1993) and Prosomarker script (Origlia & Alfano, 2012), as well as visually represented in order to identify the general prosodic features of speakers.

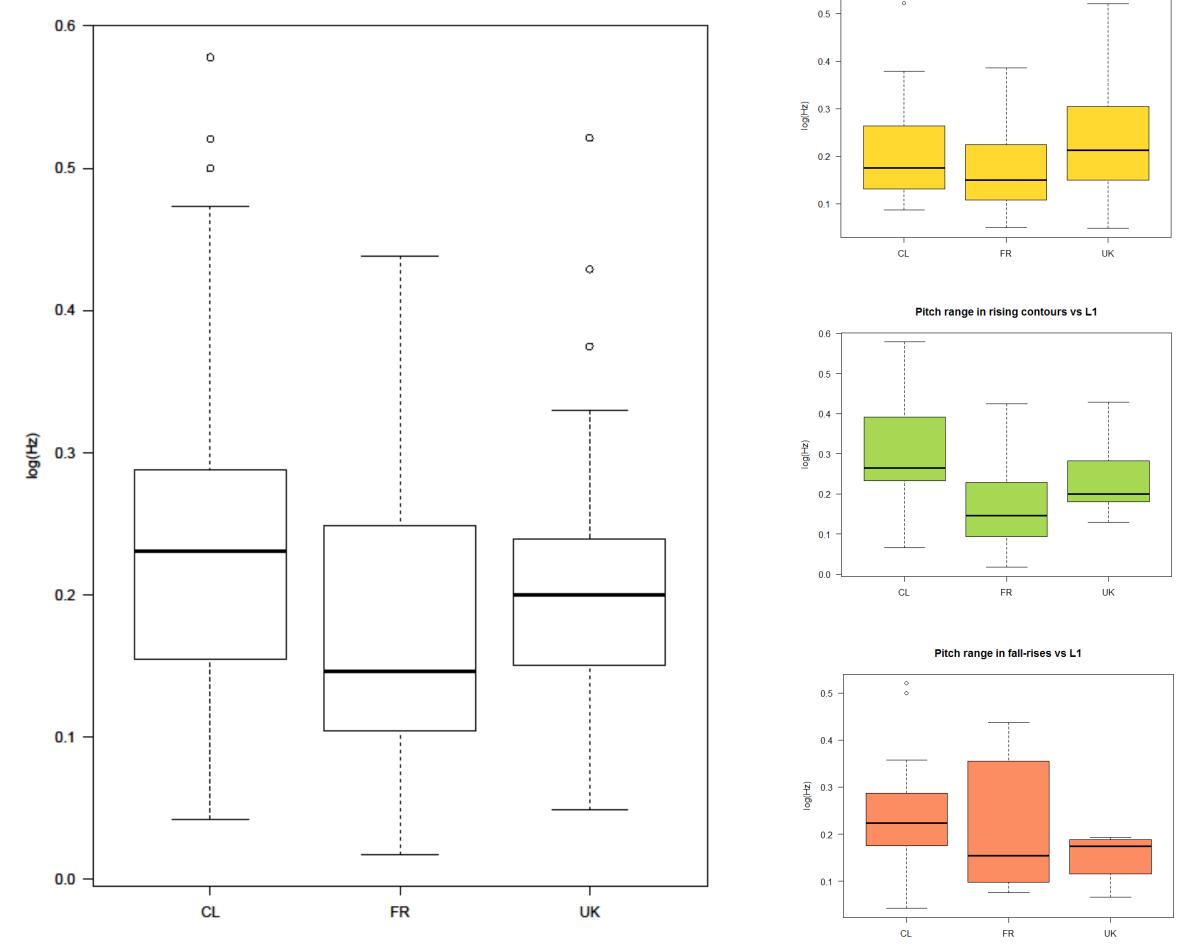
F0 start, end, minimum and maximum values were obtained for the focused element on each utterance. Pitch movements were categorized, duration values were registered, and stressed syllables and final rises at the end of questions were recorded.

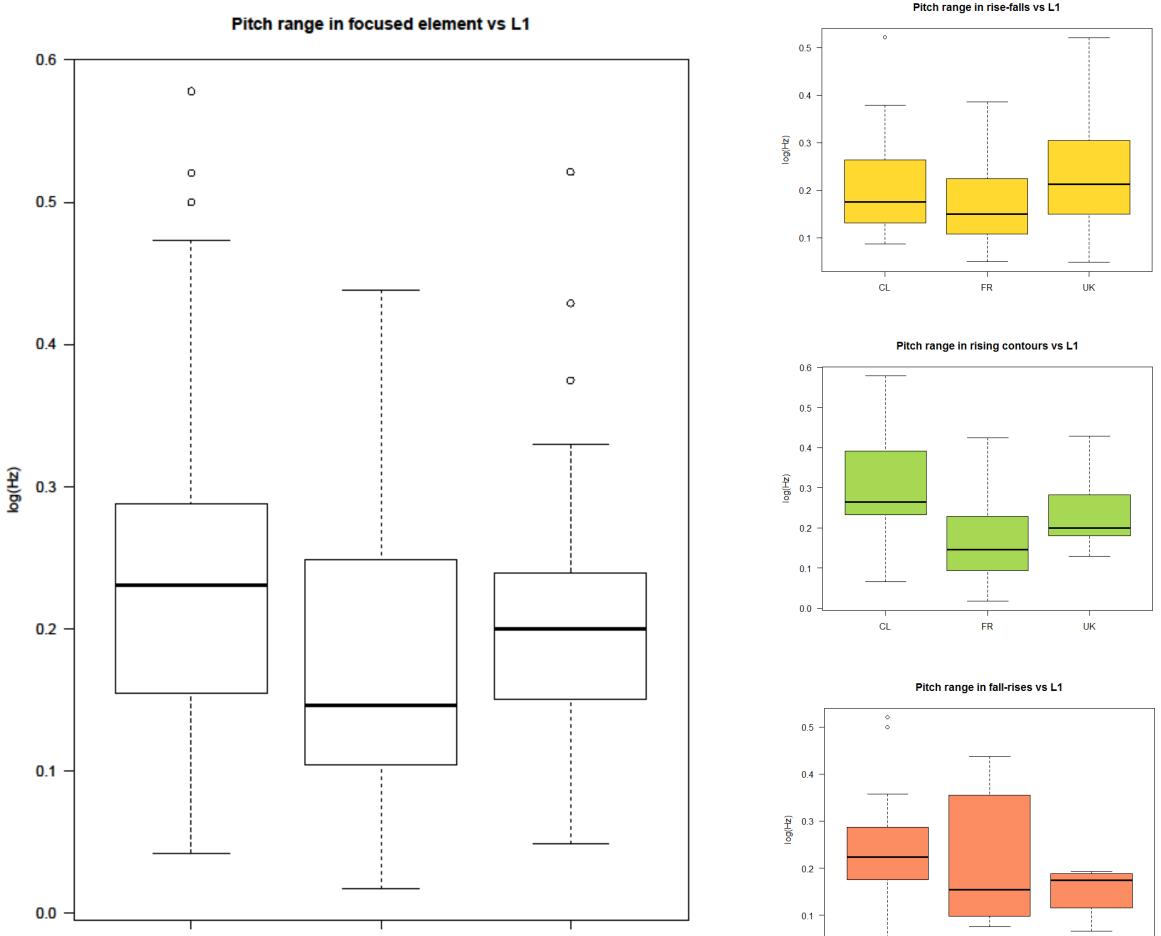
Exploratory graphic representations were generated to obtain a general view of the distribution of the aforementioned variables.

#### Results

- Analyses show that speakers of different L1 groups favor different types of pitch contours to express focus: rise-falls are most common among native English speakers, whereas rises are frequently observed in L1-French speakers and fall-rises are fairly common among Spanish speakers.
- Pitch range (max f0 min f0) values vary by group of speakers: overall, L1-Spanish speakers perform larger pitch movements than L1-French and native speakers.
- Learners perform **final rises** in questions with focused elements more often than native speakers.







#### Bibliography

Hirst, D. & Espesser, R. (1993). Automatic modelling of fundamental frequency using a quadratic spline function. Travaux de l'Institut de Phonétique d'Aix 15, 71-85.

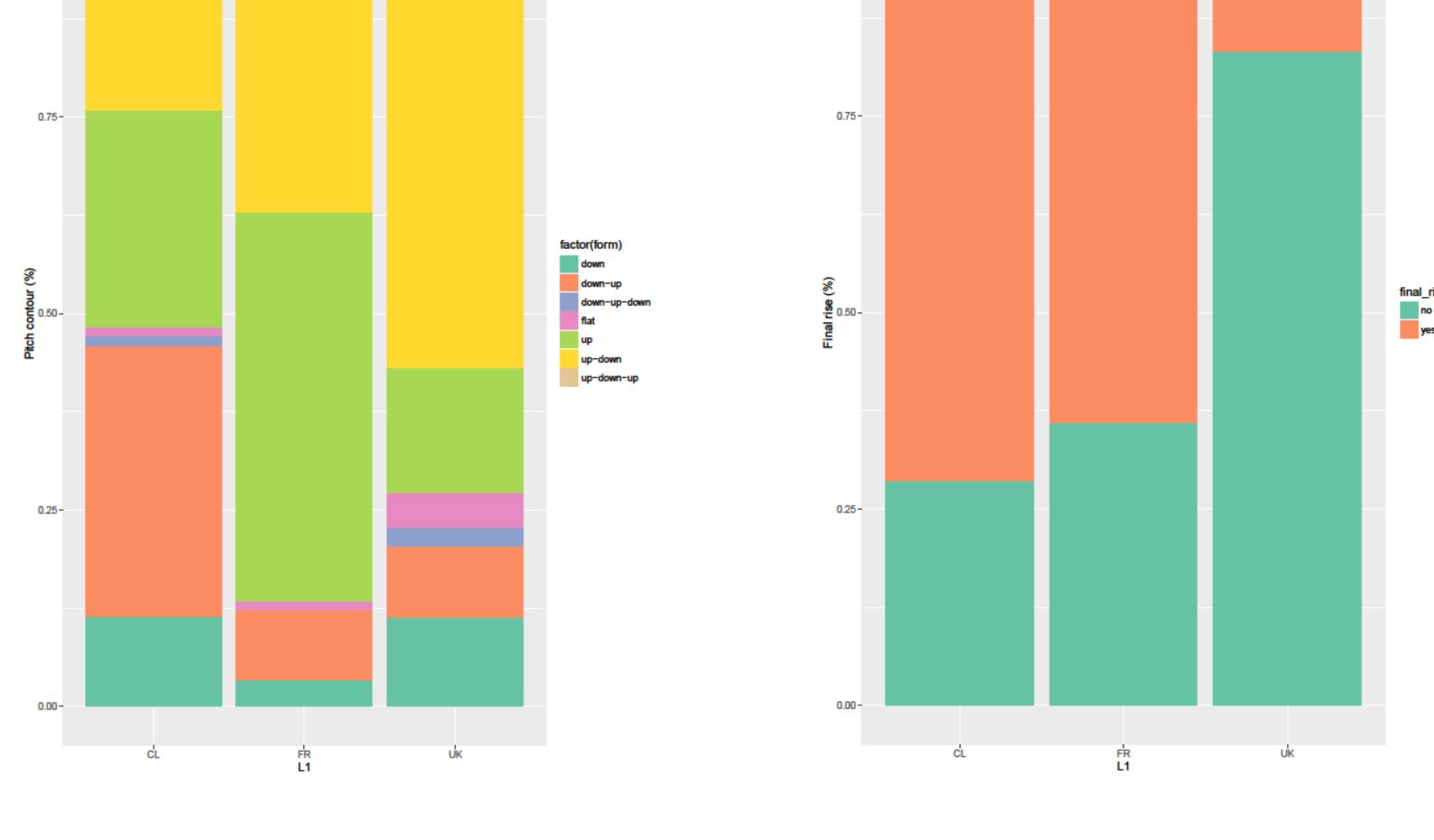
Hirst, D. (2002). Automatic Analysis of Prosody for Multi-lingual Speech Corpora. In E. Keller, G. Bailly, A. Monaghan, J. Terken, & M. Huckvale (Eds.), Improvements in Speech Synthesis. New York: Wiley.

Hirst, D. (2012). ProZed: A speech prosody analysis-by-synthesis tool for linguists. In Proceedings of the 6th International Conference on Speech Prosody (SP2012).

Origlia, A., & Alfano, I. (2012). Prosomarker: a prosodic analysis tool based on optimal pitch stylization and automatic syllabification. Proceedings of the Eighth International Conference on Language Resources and Evaluation (LREC '12), 997-1002.

Prieto, P., Borràs-Comes, J., & Roseano, P. (Coords.) (2010-2014). Interactive Atlas of Romance Intonation. Web page: <a href="http://prosodia.upf.edu/iari/">http://prosodia.upf.edu/iari/</a>

Xu, Y., & Xu, C. X. (2005). Phonetic realization of focus in English declarative intonation. Journal of Phonetics, 33(2), 159-197.



## Conclusion, discussion and further research

These results provide a first glance at the prosody of English learners. Marked differences are observed regarding pitch contour choice and range in focused lexical elements among speakers of different L1s.

However, these data remain exploratory due to the size of the sample and the variation of the syntax and lexical elements elicitated by a semi-spontaneous speech task. Confirmation is needed through the analysis of a larger corpus of learner oral production, and through the use of tasks that allow the control of variables such as lexical content.

Contextualized reading out loud tasks of short sentences presenting focus can be used in order to obtain more detailed and reliable data which could be used to establish a link between the pitch contours chosen by learners, the way they perform them and the prosody of their L1.