



ToBI Analysis of Serbian EFL Learners' Intonation Use

Author: Dušan Nikolić

1. American speaker

“I’m mostly worried about his mark in English.”

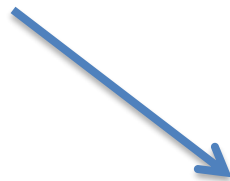
- Rising tone on ‘English’



2. Serbian EFL speaker:

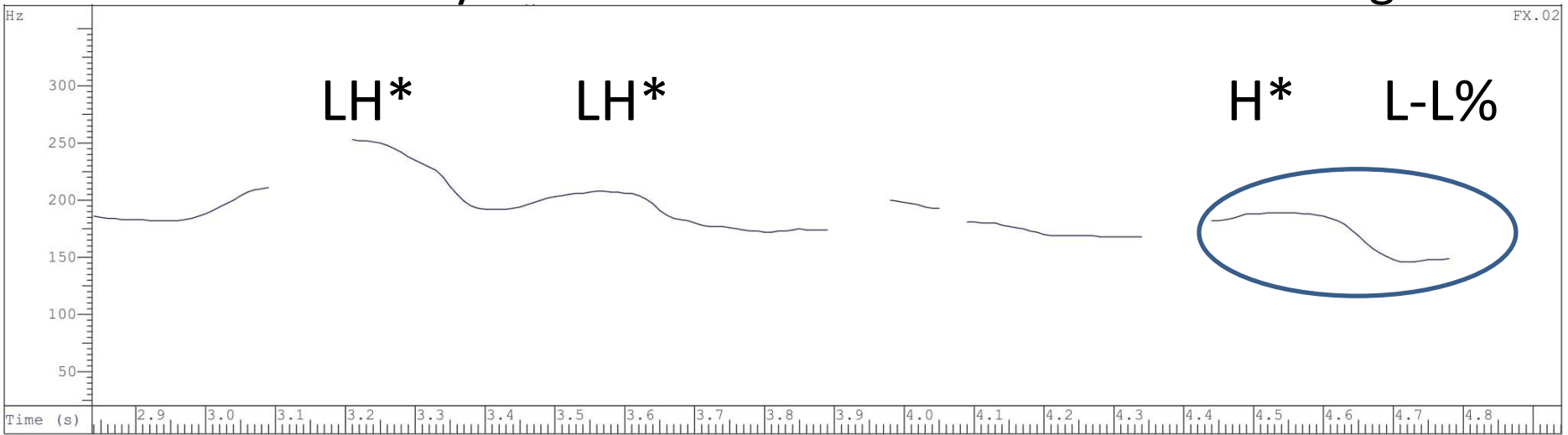
“I am mostly worried about his mark in English.”

- Falling tone on ‘English’

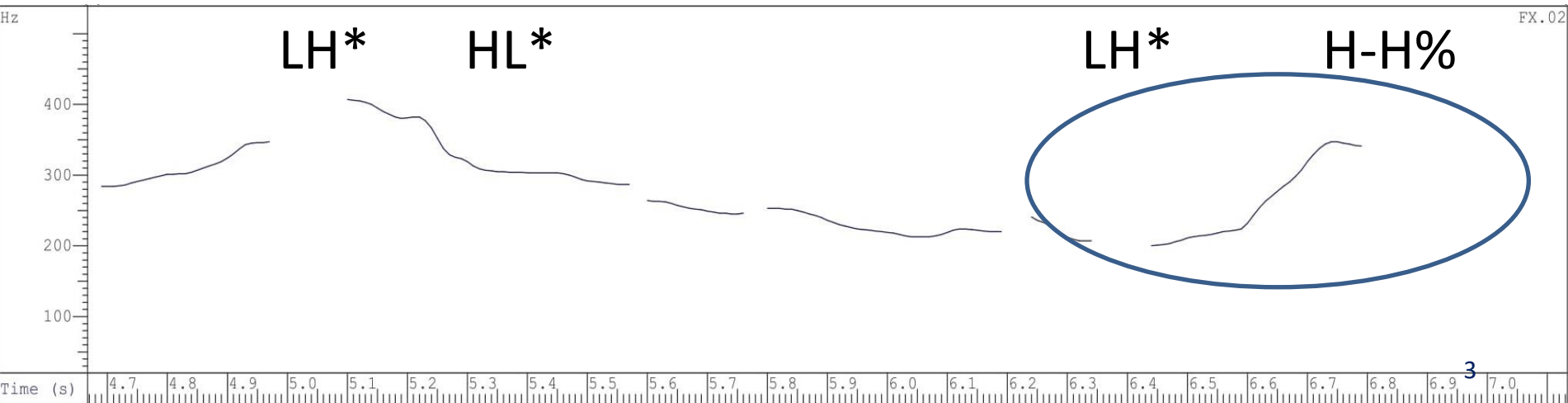


Serbian

I'm mostly worried about his mark in English



American



Tone and Break Indices (ToBI)

- Bitonal system: Low (L) and High (H)
 - Pitch accents *
 - Phrase accents –
 - Boundary tones %
- L1 speakers
 - EFL speakers

Previous Research

EFL learners' intonation use (Mennen 2006)

1. Pitch levels
2. Uses of rises and falls
3. Pitch range

Slovene EFL learners (Komar 2005)

- Narrow pitch range on accented syllables

Previous Research

Serbian EFL learners

- Paunović (2013): Discourse intonation
- Savić (2014): Pragmatic functions
 - **Narrow pitch range**

- Pejčić (2013): IP boundaries
 - ***High boundary tones**

The Present Study

How do Serbian EFL learners use intonation to express attitudes?

- Alertness
- Rejection
- Annoyance

Hypotheses:

- 1) Signal attitudes: low pitch range
- 2) Choice of pitch accents

Methodology

Corpus:

- Short story (Deterding 2006)

Attitude tokens:

- Alertness: 'Wolf, wolf!'
- Rejection: 'Go away...'
- Annoyance: '...and don't bother us again'

Methodology

Participants:

- 2 groups:
 - i. 2 American speakers
 - ii. 6 Serbian EFL speakers (C1 – C2 CEFR Level)
 - Female speakers
 - 21 – 26 years old (M=23.5)

Methodology

Procedure:

1. Reading task

2. ToBI analysis:
 - a) Pitch accents L/H*
 - b) Phrase accents L/H-
 - c) Boundary tones L/H%
+indices

Methodology

3. Acoustic measurements

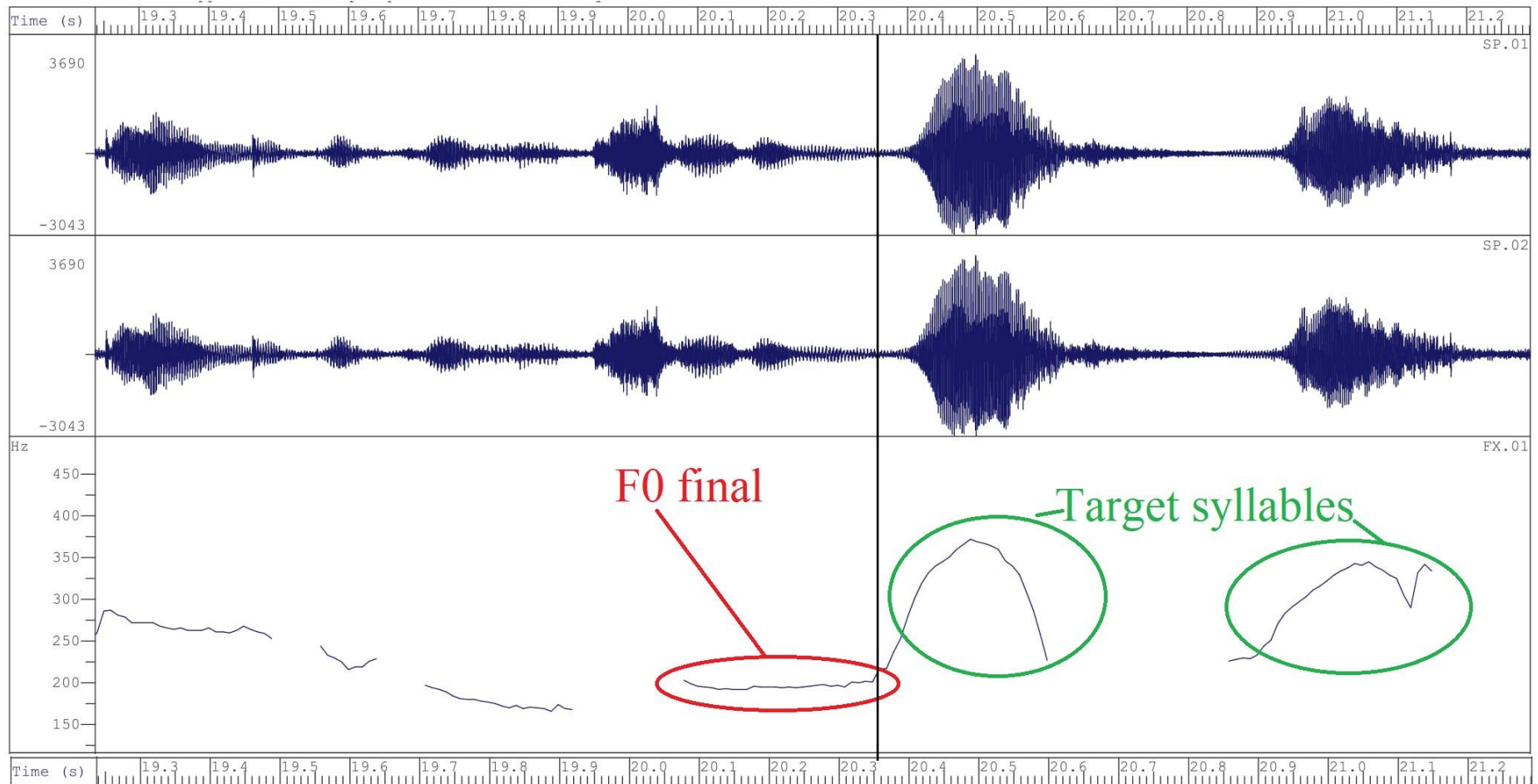
- SFS (Speech Filing System) (© Huckvale 2008)

F0 tracking & estimate functions

- a) Pitch range (Hz & Semitones)
- b) Pitch mean values
- c) F0 differences

Methodology

C) F0 differences: F0 final and F0 initial



Results

I. Alertness

1. Intonation contour (ToBI)

Ame: LH* L-L%

EFL: LH* (L*) L-L%

2. Pitch range

Ame: 121.5 Hz (7.71 ST)

EFL: 68.3 Hz (4.6 ST)

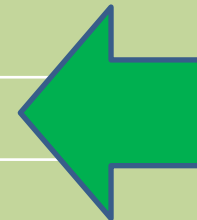
- narrow pitch range

Results

I. Alertness

3. F0 differences

Participants	F0 final/initial syllable pitch difference (Hz)	F0 final/initial syllable pitch difference (ST)
AmE_Sp1	171.5	10.9
AmE_Sp2	118	8.4
Ser_Sp1	258	15.7
Ser_Sp2	182	11.63
Ser_Sp3	64	6.1
Ser_Sp4	31	2.7
Ser_Sp5	64	5.1
Ser_Sp6	119	11.25



Results & Discussion

- All the Serbian speakers exhibited low (narrow) range on target syllables: not a clear signal of alertness
- Mixed results on F0 differences

Results

II. Rejection

1. Intonation contour (ToBI)

Ame: LH* L-

EFL: LH* L-

2. Pitch range

Ame: 87.5 Hz (7.0 ST)

EFL: 69 Hz (4.2 ST)

- narrow pitch range

Results

II. Rejection

3. F0 differences

Participants	F0 final/initial syllable pitch difference (Hz)	F0 final/initial syllable pitch difference (Hz)
AmE_Sp1	159	10.8
AmE_Sp2	78	5.1
Ser_Sp1	224	14.5
Ser_Sp2	201	14.7
Ser_Sp3	73	7.1
Ser_Sp4	98	8.9
Ser_Sp5	38	2.4
Ser_Sp6	108	8.7



Results & Discussion

- 1) Appropriate use of pitch accents and F0 differences
- 2) Relatively narrow pitch range - too 'flat'

Results

III. Annoyance

1. Intonation contour (ToBI)

Ame: L* L-L%

EFL: LH* or HL* L-L% (L-H%)

2. Pitch range

Ame: 53 Hz (5.8 ST) - low

EFL: 40.5 Hz (3.8 ST) - low

Results & Discussion

1. Discrepancies in the choice of tones:

Pitch accents & boundary tones

(Pejčić 2013)

2. Pitch range: low (both groups)

narrow range indicates annoyance

Conclusions

1. Mixed findings on the choice of tones and F0 differences

- ① Alertness: F0 differences
- ② Annoyance: High tones

2. EFL learners exhibited major issues with the **pitch range**

 Alertness & Rejection

 Annoyance

Conclusions

Reasons:

1) L1 -> L2 (negative)

- Pitch accents (H)
- Pitch range

2) Low awareness degree

3) Lack of L2 intonation exposure

References:

- Huckvale, M. (2008). Speech filing system. Url: www.phon.ucl.ac.uk/resources/sfs.
- Nikolić, D. (2018). Tone and Break-indices (ToBI) Theoretical Framework Applications with EFL Students. Proceedings from Language, Literature, Theory Conference. Niš, University of Niš
- Paunović, T., & Savić, M. (2008). Discourse intonation-Making it work. ELOPE: English Language Overseas Perspectives and Enquiries, 5(1-2), 57-75.
- Pierrehumbert, J., & Hirschberg, J. B. (1990). The meaning of intonational contours in the interpretation of discourse. Intentions in communication, 271-311.
- Pejčić, A. (2013). Proceedings from Language, Literature and Culture Conference. Intonational Phrase Boundaries as Markers of Argumentative Discourse in an EFL Debate Class. Niš, Serbia: University of Niš.
- Savić, M. (2014). Politeness through the prism of requests, apologies and refusals: a case of advanced Serbian EFL learners. Cambridge Scholars Publishing.

THANK YOU FOR
YOUR ATTENTION!!



