How do Japanese students of Spanish perceive lexical stress in rising intonation?

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Japanese learners of L2 Spanish often fail to perceive the lexical stress in Spanish, especially in rising intonation contexts. This means that L1 Spanish speakers and Japanese learners use different strategies to perceive the lexical stress in such cases. The aim of this communication is to investigate, with a perception experiment, the strategies used by native Spanish speakers and those used by Japanese students learning Spanish to identify the lexical accent, especially in rising intonation contexts.

In the experiment participated 52 native speakers of European Spanish and 37 native speakers of Japanese learning Spanish.

To prepare the stimuli, a recorded voice of a male Spanish speaker reading the following two senteces with a nonce word *ladebo* was used: (1: phrase-final context, "PF" in **Figure 1**) *Dijo la palabra* ladebo *la semana pasada.* "S/he said the word *ladebo* last week." (2: question context, "Q") *¿Dijo la palabra* ladebo*?* "Did s/he say the word *ladebo*?"

These original recordings were manipulated using Praat in the following way: the timing of the F0 rise in the word *ladebo* was changed into 10 different patterns shown in **Figure 1**. The relative durations of the three syllables *la-*, *-de-*, and *-bo* were also changed into 7 patterns as shown in **Table 1**. A total of 140 stimuli (2 contexts × 10 F0 patterns × 7 duration patterns) were presented to the participants, who were asked to determine on which of the three syllables the stress falled.

One of the major findings is: both L1 Spanish speakers and Japanese students of Spanish use the F0 movement and the syllable duration to perceive the lexical accent, but the Japanese students give more importance to the F0 movements than the Spanish speakers.
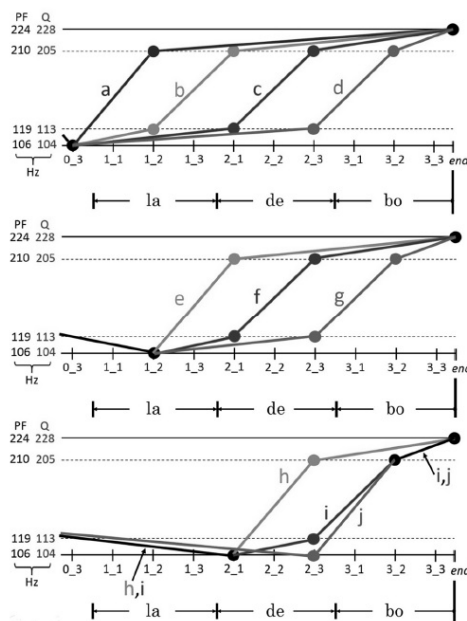

Figure 1. The ten F0 rising patterns

Table 1. The seven syllable duration patterns

Pattern ID	Relative syllable duration (*-bra* = 1)		
	la-	*-de-*	*-bo*
0	1	1	1
1	1.15	0.85	0.85
2	0.85	1.15	0.85
3	0.85	0.85	1.15
4	1.3	0.7	0.7
5	0.7	1.3	0.7
6	0.7	0.7	1.3