

# The effect of context of learning on the perception of the F0 peak displacement by Japanese-speaking learners

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This study explores the effects of context of learning (formal instruction vs. immersion) on the perception of Spanish lexical stress, in particular, F0 (pitch) peak displacement, in 45 Japanese-speaking advanced learners of Spanish. As such, it compares the perception of Spanish lexical stress by 25 Japanese speaking-learners of Spanish who have had four years of classroom instruction at an at home university in Japan, with 20 who have had five years of immersion in a Spanish speaking country, namely Colombia. Based on the differences between the Spanish (Hualde, 2005; Llisterri, Marín & Mota, 1995) and the Japanese systems (Morimoto, 1984; Labrune, 2012; Hirayama, 2009; Kubozono, 2011), it is predicted that learners will have difficulty perceiving lexical stress in interrogative contexts: yes/no questions with trisyllabic paroxytone words in final position. For example, the participants will perceive ¿él dijo límite? as ¿él dijo 'limité'?. This can result in a lexical confusion and interfere with communication.

The participants consisted of 45 advanced Japanese-speaking late learners of Spanish (20 in Bogotá and 25 in Japan). Their ages varied between 22 and 50 years old. A total of 20 native Spanish speakers of Bogotá Spanish acted as the control group. All three groups were required to participate in a stress identification task. Nine sets of 3 syllable accentual minimal triplets with each having an oxytone (e.g., nabidó), a paroxytone (e.g., nabido) and a proparoxytone (e.g., návido) were used in the stress identification task. The participants listened to the target words in five different contexts: isolation (e.g., medico), final position of yes/no questions (e.g., ¿él dijo límite?), final position in exclamations (e.g., ¡él dijo válido!), non- final position of yes/no questions (e.g., ¿él dijo medicó ayer?), in non- final position of exclamations (e.g., ¡él dijo médico ayer!).

The results showed that there was a significant effect of context of learning. Japanese speakers in Japan had a significantly ( $p=0.000$ ) higher error rate than the learners living in Colombia (88% vs. 60% error respectively). These results confirm the findings of previous studies regarding the positive effect of context of learning on L2 speech acquisition (e.g., Kinginger, 2004; Martínez-Arbeláiz and Pereira, 2006). Also, it is confirmed the hypothesis that Japanese-speaking learners use their L1 stress cue (F0) to perceive Spanish lexical stress even in an advanced stage of learning. This study is important because it adds to the body of literature on the effect of context of learning by showing that immersion can also enhance L2 stress perception. Moreover, it has pedagogical implications.

Keywords: Context of learning; L2 phonological acquisition; stress; Japanese; F0 peak.

## Bibliography

Díaz Campos, M. 2006. "The effect of style in second language phonology: An analysis of segmental acquisition in study abroad and regular-classroom students". *Selected Proceedings of the 7th Conference on the Acquisition of Spanish and Portuguese as First and Second Languages. Somerville, MA: Cascadilla Proceedings Project.*

Hualde, José Ignacio. (2005). *The sounds of Spanish*. Cambridge. UK.

- Kinging, C. (2004). Alice doesn't live here anymore: Foreign language learning as identity (re) construction. In Pavlenko, A. & Blackledge, A. (eds.), *Negotiation of Identities in Multilingual Contexts* (pp. 219 – 242). Clevedon, UK: Multilingual Matters.
- Kubozono, Haruo. (2011). Japanese Pitch Accent. En van Oostendorp, M. (Ed.). *The blackwell companion to phonology*. Chichester, U.K.; Malden, MA: Wiley-Blackwell.
- Llisterri, J., Marín, R., de la Mota, C., Ríos, A. (1995) Factors affecting F0 peak displacement in Spanish. In *Eurospeech'95. Proceedings of the 4th European Conference on Speech Communication and Technology*. Madrid, 18 -21 de septiembre de 1995. Vol. 3, pp. 2061-2064. ISSN: 1018-4074.
- Lord, G. (2010), The Combined Effects of Immersion and Instruction on Second Language Pronunciation. In *Foreign Language Annals*, 43: 488–503.
- Loewen, S. (2015). *Introduction to instructed second language acquisition*. New York: Routledge.
- Martínez Arbelaiz, A. e I. Pereira. 2006. “The Acquisition of the Spanish Indicative Imperfect in a Study Abroad Context”. Comunicación presentada en la 88th American Association of Teachers of Spanish and Portuguese, Salamanca, 28 de junio-2 de julio, 2006.
- Morimoto, Yoshiharu. (1984) El acento español y el acento japonés en contraste. En *Sophia Lingüística*, 16, 1984, pp. 10-17.
- Romanelli, Sofía, Andrea Menegotto & Ron Smyth (2015). Percepción y producción de acento en alumnos angloparlantes de ELSE en la Argentina: Efectos del entrenamiento y de la inmersión. *Signo y Seña*, 27, 47-88
- Romanelli, Sofía, Andrea Menegotto & Ron Smyth (2015) “Stress perception: effects of training and a study abroad program for L1 English late learners of Spanish”. *Journal of Second Language Pronunciation* 1.2: 181-210.