

Towards the Developmental L2 Intonation hypothesis: Evidence from L2 Italian and L2 Spanish

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Whereas research on L2 segmental phonology already has a long tradition (for overviews see e.g. Piske et al. 2001; Colantoni et al. 2015; Derwing & Munro 2015), our knowledge of L2 intonation interlanguages and their development is still very limited (see e.g. Mennen 2015 for an overview). This is also because intonation research is “younger” and many (L1) languages still lack any modelling or descriptions, albeit a lot of work on the intonation grammar of typologically different languages and their varieties has been done (see e.g. Jun 2006, 2014; Ladd 2008; Frota & Prieto 2015 among many others). Another difficulty is that intonation requires the simultaneous acquisition of other components of language such as segments, syntax, semantics and pragmatics, making a comprehensive understanding of intonation very challenging.

Language acquisition in general is characterized by universal, language-specific and individual factors. In this paper, light is shed on the first two of these areas as pertaining to intonation by examining data from a large cross-sectional study, in which 20 Czech learners of Spanish, 20 German learners of Spanish and 20 Czech learners of Italian are compared; half of the learners had attained an intermediate level (B), the other half were advanced (level C). All of these (adult) learners, acquiring the languages in a home-country context, participated in a one-hour production experiment (see Pustka et al. 2018) that was designed to gather L2 phonological inventories. The data analyzed, consisting of roughly 5000 tonal events (pitch accents and boundary tones), were obtained by means of audio-recording answers to an intonation survey (see e.g. Frota & Prieto 2015), which formed one part of the production experiment and included (non-)neutral declaratives, (non-)neutral yes/no questions, (non-)neutral wh-questions and vocatives (N = 25 sentences per speaker). The F0 contours in the recordings were formalized within the Autosegmental-Metrical model of intonational phonology (Pierrehumbert 1980), with AM-based labels being applied to facilitate systematization and comparison of the data. Additional measurements (the height of all pitch accents and the pitch change for each tonal event) were also performed.

A multidirectional cross-linguistic comparison of the results made it possible to uncover the effects that each L1 had on L2 intonation learning, the specific areas in which interlanguage varieties differed and the particular problems that tended to characterize each group of learners. One of the most important findings was that L1 Czech learners of Spanish differed more from L1 Czech learners of Italian in their intonation L2 patterns than L1 Czech learners of Spanish differed from L1 German learners of Spanish. This means that—in spite of transfer effects from L1 to L2—L2 intonation is “learnable”. Another observation was that L1 influences could not account for all the non-native-like patterns and tonal events in L2s.

Aside from issues related to the transfer hypothesis and cross-linguistic influence, the data also cast considerable light on the question of whether there are any “universals” in the acquisition of L2 intonation. On the basis of the findings, and in line with Mennen’s (2015) *L2 Intonation Learning theory* (LILt), a nine-point *Developmental L2 Intonation hypothesis* is proposed, as follows.

Developmental L2 Intonation Hypothesis

(1) *Phonological features of intonation are acquired earlier than the phonetic features of intonation.* For example, learners had no particular difficulty with a high boundary tone in Spanish or Italian yes/no questions, but implemented the rises with different L1-based F0 shapes.

(2) *Pragmatically unmarked structures are acquired earlier than marked structures.* For example, learners showed more problems with statements of the obvious and counterexpectational yes/no and marked wh-questions than with their neutral counterparts. This indicates that learners have a lower pragmatic/semantic knowledge in their L2.

(3) *Patterns with a heavy semantic weight are acquired earlier than patterns with no changes in meaning.* For example, Méndez Seijas (2018) found out some L1 English learners of Spanish stopped using uptalk in statements after a certain period because uptalk might lead to wrong interpretation.

(4) *Patterns that exist in both L1 and L2 are acquired earlier than new patterns provided that they convey the same meaning.* For example, learners had no difficulties with a low boundary tone in statements; German (but not Czech) learners also handled vocatives in Spanish very well due to positive transfer.

(5) *Patterns that do not lead to changes in the semantic dimension fossilize faster.* For example, certain pitch accents in the prenuclear position of statements (L*+H, L+H* and L+<H*) that differ in terms of alignment but do not change meaning are more sensitive to fossilization.

(6) *Patterns that are phonetically similar in the learners' L1 and the target language fossilize faster than phonetically different patterns.* For example, Czech learners of Italian tended to fossilize a L*+H pattern in prenuclear position in statements because it is phonetically similar to the L1 Czech accentual phrase and the L1 Italian L+H* pattern. In contrast, they did not fossilize the L1 Czech-based L*+H in the nuclear position of pragmatically marked statements: here the Italian (L+)H*+L pattern is present, which is phonetically different from the L1 Czech L*+H/L+H* focus patterns.

(7) *Patterns in functionally weaker positions fossilize faster than patterns in functionally stronger positions.* Pitch accents in medial position in statements showed the lowest accuracy in all interlanguage varieties. This deviation can be interpreted as a case of negative transfer and a result of the fact that medial pitch accents have a weaker impact on meaning than initial pitch accents or nuclear configurations.

(8) *New but frequent and perceptually prominent patterns tend to be subject to overgeneralization.* Italian L2 learners overgeneralized the (L+)H*+L pattern, which is characteristic of emphasis and focus in L1 Italian. Learners probably interpret this perceptually prominent pattern – which does not exist in their L1s – as a kind of “Italianish” feature.

(9) *Rising boundary tones (being unmarked or “universal” forms) tend to be overgeneralized in all types of questions.* A high boundary tone is preferred in different types of question, even where L1s require a low boundary tone.

References

- Colantoni, L.; Steele, J. & P. Escudero. 2015. *Second Language Speech. Theory and Practice*. Cambridge: Cambridge University Press.
- Derwing, T. M. & M. J. Munro. 2015. *Pronunciation Fundamentals. Evidence-Based Perspectives for L2 Teaching and Research*. Amsterdam/Philadelphia: John Benjamins.
- Frota, S. & P. Prieto (Eds.). 2015. *Intonation in Romance*. Oxford: Oxford University Press.
- Jun, S.-A. (Ed.). 2006. *Prosodic Typology: The Phonology of Intonation and Phrasing*. Oxford: Oxford University Press.
- Jun, S.-A. (Ed.). 2014. *Prosodic Typology II: The Phonology of Intonation and Phrasing*. Oxford: Oxford University Press.
- Ladd, R. 2008. *Intonational Phonology*. (2nd edition). Cambridge: Cambridge University Press.
- Méndez Seijas, J. 2018. L2 Spanish Intonation in a Short-Term Study Abroad Program. C. Sanz & A. Morales-Front (Eds.), *The Routledge Handbook of Study Abroad Research and Practice*. New York/London: Routledge, 89–104.
- Mennen I. 2015. Beyond segments: Towards a L2 intonation learning theory. In E. Delais Roussaire, M. Avanzi & S. Herment (Eds.), *Prosody and language in contact*. Heidelberg, Germany: Springer, 171–188.
- Pierrehumbert, J. B. 1980. *The Phonology and Phonetics of English Intonation*. PhD dissertation, Massachusetts Institute of Technology.
- Piske, T.; MacKay, I. R. A. & J. E. Flege. 2001. Factors Affecting Degree of Foreign Accent in an L2: A Review. *Journal of Phonetics* 29, 191–215.
- Pustka, E.; Gabriel, C.; Meisenburg, T.; Burkard, M. & K. Dziallas. 2018. (Inter-)Fonología del Español Contemporáneo (I)FEC: metodología de un proyecto de corpus. *Loquens* 5(1), 1–16.