

# Acquisition of the [+nasal] feature in vowels of L2 European Portuguese: perceptual performance of L1 Spanish, Italian, Polish and French learners

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Studies on acquisition of the phonology of non-native languages show cross-linguistic interference (Selinker 1972, Corder 1981, Ellis 1986 and Skehan 2008). During the acquisition process, it is common to resort to the (positive and/or negative) transfer of known phonological patterns to fill in gaps in knowledge of the target language (Zybert 1997, Chaimanee 1999, Best, Hallé, Bohn and Faber 2003 and Skehan 2008). This study aims to describe the perceptual performance of vocalic nasality contrasts of L2 European Portuguese by L1 speakers of languages with (Polish and French) and without (Spanish and Italian) contrastive vowel nasality. The research questions are:

- (i) Which L1 group shows greater difficulty in perceiving vowel nasality?
- (ii) Which segments show most divergence from the target?
- (iii) Which segments are perceptually less marked?
- (iv) Which contexts favour perception according to the target?
- (v) How does cross-linguistic influence manifest itself in the perception of vowel nasality in EP?

A perception test was developed consisting of three discrimination tasks (51 stimuli) and four identification tasks (52 stimuli). Stimuli include words containing the oral vowels [a, e, e, i, o, u] and nasals [ẽ, ã, ë, õ, ù], in stressed and unstressed positions, in monosyllables, disyllables and polysyllables. The test was administered to five L2 learners of EP of initial levels per L1. Data were analysed by observing how L2 sounds are mapped into L1 categories (Flege 1995 and Best & Tyler 2007).

Results show that (i) different L1 learners perceive vowel nasality in L2 EP differently, (ii) [a, e, ẽ] present greater divergence from the target for Spanish learners, [o, õ] for Italian and Polish learners, and [i, ë] for French learners; (iii) the least perceptually marked segments are [o, õ] for Spanish and French speakers, and [u, ù] for Italian and Polish speakers; (iv) the contexts that favour perception according to the target are the stressed syllable in monosyllables and disyllables, (v) crosslinguistic influence seems to be, at least partially, responsible for divergences in the perception of vowel nasality (speakers of French and Polish have higher results). The results obtained seem to support one of the assumptions of the SLM and PAM-L2 perceptual analysis models: L1 influences the acquisition of L2 sound system.

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