The production and perception of laryngeal features during phonological transfer: An experimental investigation of Hungarian learners of Spanish and English

Past decades have seen an increase in research on multilingual speech. However, most studies focus on morphosyntactic phenomena, or the phonetic aspects rather than phonological approaches to foreign language acquisition. They do not agree on which theoretical account explains best the attested transfer or the lack of it. Hermas (2015) claims that L1 has a privileged role and thus serves as the exclusive source of transfer, while according to the L2 Status Factor model (Bardel and Sánchez 2017), the acquisition of L3 and subsequent languages is cognitively more similar to that of L2 and thus it is the L2 that is more likely to serve as source of transfer. According to the Typological Primacy Model (Rothman 2015), it is the more similar language that is transferred wholesale; while Berkes and Flynn (2012) claim that all previously acquired languages are available for transfer but only in case the influence is facilitative. On the other hand, Westergard et al. (2017) (Linguistic Proximity Model) and Slabakova (2017) (Scalpel Model) advocate for both positive and negative transfer. They also claim that transfer occurs property-by-property rather than wholesale, depending on which aspects of L1 or L2 are perceived to be more similar. The modeling of similarity, complexity, frequency, etc., is not straightforward, and by allowing a wide array of optionality, the models fail to predict much and are difficult to be falsified.

Data on the nature of the driving forces behind phonological processes is much less abundant, and similarly to other linguistic levels, no prevalent model has been identified. Neither is the link between perception and production clearly defined. Conducting research in the field is not an easy task since a multitude of language external variables should not only be controlled for but also defined and measured, including age, length of study, context of study (e.g. immersion, heritage language), type of instruction (or lack of it), metalinguistic awareness, etc.

The aim of the present research is to account for learner knowledge and behaviour regarding dynamic laryngeal processes, namely regressive voicing assimilation between obstruents (RVA) pre-sonorant voicing (PSV) and voiced stop spirantisation (VS) in the speech of L1 Hungarian, L2/L3 Spanish/English informants. The paper will focus on the following:

1. Pre-sonorant voicing in Spanish is very similar, though not identical to RVA in Hungarian. It is a RVA, but also triggered by sonorant consonants, and due to the phonotactic restrictions of Spanish it mostly applies to the sibilant fricative /s/ as in *prisma* ‘prism’, but there is no phonologically voiced sibilant in the inventory of Spanish. PSV is a relatively infrequent laryngeal pattern typologically, it is nonexistent in Hungarian, and it does not create a novel segment for L1 Hungarian learners. The question arises whether learners are able to notice it and learn it. To test this, we carry out a pilot production experiment which measures the voicing of the sibilant fricative in presonorant context in read-out sentences, and a follow-up perception experiment to examine the salience of PSV and the link between production and perception.

2. Spanish spirantisation (e.g. [d]*ama* ‘lady’ but la [ð]ama ‘the lady’) is a process that creates a novel allophone, nonexistent in L1, and for this reason we expect that while it may cause production difficulties due to its unusualness, its perception will be predicted to be relatively easier due to the same reason. Again, we will test this with a pilot production experiment investigating whether the target spirant has been produced by learners or not. A perception experiment will also investigate if these spirants are perceived as such (and not as stops) by learners.

3. In learners' English interlanguage we examine whether they are able to “unlearn” RVA. This phenomenon, just like the other two (PSV and VS) are tested within the word and across a word boundary since in a word-by-word acquisition phonetic fine tuning is enough to produce target-like segments while across a word boundary the acquisition of the dynamic phonological process can be tested. Where possible, cognateness will also be included as a factor to test whether similarity indeed induces more cross-linguistic influence, either facilitative or negative.

This paper thus aims to fill the gap of research on phonological transfer in particular, and in general, to shed further light on laryngeal processes in Hungarian, the nature of contrast maintenance and neutralisation in assimilatory contexts both articulatorily and perceptually.

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