

Aspiration of /st/-clusters in Western Andalusian Spanish: Variation and change from a sociophonetic point of view

In Andalusian, and many other varieties of Spanish, syllable final /s/ is reduced to aspiration (*listo* [ˈlihto]), realized as breathy voicing or even deleted ([ˈlito], [ˈlit:o]). In Western Andalusian, there are other phonetic variants related to /s/-aspiration: For Seville and Antequera there has been an affricate [ts] or [t^s] described as a variant of /st/ clusters ([lit^so]) (Moya 2008). This dentoalveolar affricate or affricated /t/ is a new sound in Spanish, as the only affricate in modern Spanish is the palatal [tʃ] (*mucho* [ˈmutʃo]). Furthermore, for Seville, postaspiration ([lit^ho]) seems to be much more frequent than preaspiration ([lihto]) (Torreira 2006).

In our study we have analysed the apparently new sound [t^s] from a sociophonetic point of view: How can we define the new variant on a phonetic-acoustic level? Does the occurrence of the sound depend on social variables and confirm our hypothesis of a new sound with a potential to sound change?

In order to answer these questions, we collected auditory material in Seville. Our 53 subjects were all Sevillians. The speakers were chosen considering the social variables *age*, *gender* and *educational level* to create an equally structured corpus. Following current sociolinguistic methods, the interview included a conversation, the reading of a text and a word list.

The sounds [t^h] and [t^s] –not always easy to keep apart– were distinguished significantly in duration of VOT, closure duration and the relation between VOT and total duration.

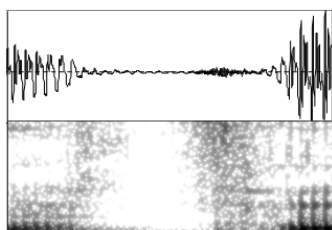


Figure 1: Oscillogram and spectrogram of the word *hasta* [aht^ha].

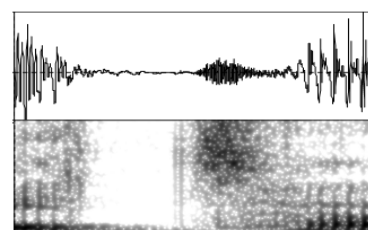


Figure 2: Oscillogram and spectrogram of the word *fiesta* [ˈfjet^sa]

For the sociolinguistic analysis, we worked with a corpus of 5437 /st/-clusters, pronounced by 53 Sevillian speakers. We proved the influence of the variables *age*, *gender* and *level of education*, statistically, as well as the formality of the context (reading vs. conversation). The /st/-realisations were classified audiotively, drawing upon oscillograms and spectrograms.

Figure 3 visualizes the results of the data analysis: The more informal the conversational situation, the more numerous was the affricate. Young Sevillians and persons with a higher level of education pronounced significantly more affricates than older people or people with a lower level of education. Gender had no significant effect. We conclude that the innovative sound [t^s] is, in the speech of Seville, rather prestigious than stigmatized. The dentoalveolar affricate [t^s] seems to be in expansion, and it is very likely that we have here sound change in progress.

The distribution in figure 4 confirms Torreira's results (Torreira 2006), that for the Western Andalusian, postaspiration is much more frequent than preaspiration.

Phonetic studies on aspiration in Eastern Andalusian Spanish report on preaspiration, breathy voice and geminates (Gerfen 2002, O'Neill 2009, Bishop 2007), but not on postaspiration. Traditional dialectological studies also refer to geminates and aspiration, but the transcription modes of the latter ([kahko], [lihto], [kahpa]) suggest clearly that dialectologists did not distinguish between pre- and postaspiration.

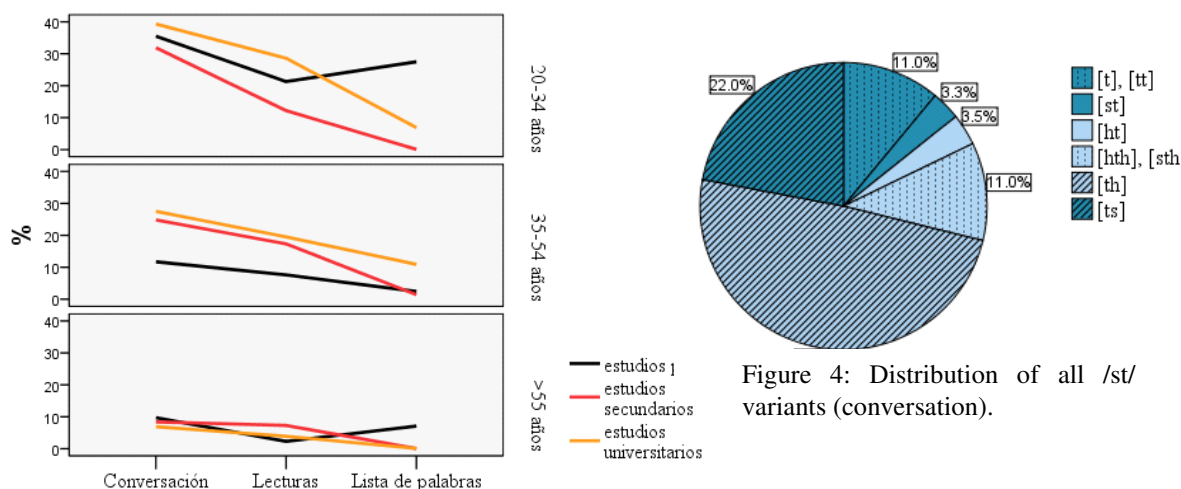


Figure 3: [t^s] frequency according to age, educational level and formality degree.

Due to this state of affairs, the possibility of a sound change in Western Andalusian Spanish needs to be considered. This hypothetical change from pre- to postaspiration ([^hp], [^ht], [^hk] → [p^h], [t^h], [k^h]) could be the basis for a further step, [t^h] → [t^s].

We plan to answer this question in a follow-up study, starting with the same 53 speakers, but limiting our phonetic analysis to the word list. In the case of the variant [t^s], we follow the apparent-time methodology. Our hypothesis is corroborated, if the length of the preaspiration is positively, the length of the VOT (postaspiration) negatively correlated with age. Other social variables like level of education and gender will also be taken into account. As the change [ht] → [t^h] represents a former, maybe already concluded step in the hypothetical chain of sound changes, the correlation with age and educational level is expected to be less distinctive than for [t^s]. As in the case of the affricated /t/, we don't expect gender to have any effect. Of special interest are comparisons between the occurrence of [t^h] and [t^s].

The follow-up study is a work in progress, but the results should be ready to be presented at the *Sociophonetics Conference* in Pisa, in December 2010.

References

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