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Chilean Spanish *s*-weakening as an example of phonological opacity

It is a well-known fact that syllable-final *s* undergoes aspiration in several Spanish dialects. The process has been widely discussed in the literature (Harris 1983, Colina 1997, Kenstowicz 1995, Lipski 1999, among others). It is typically described as positionally-conditioned segment weakening originating in southern Spanish Andalusian dialects, with a wide array of manifestations across Spanish language varieties and various types of interaction with other phonological processes. Typically, coda *s* is weakened to *h* both word-medially and word-finally (*esto* 'this' [ɛh.tɔ], *pues* 'so' [pwɛh]), which can be analysed as a coda condition against *s*.

The process of aspiration is not straightforward, however, due to the fact that Romance languages allow for resyllabification across word boundaries. This results in opacity effects in the form of overapplication where the aspirated segment occupies the onset and not the coda position (e.g. *las alas '*the wings' [la.ha.lah]). This opacity effect is doubled in dialects which permit segment deletion as an *s*-coda condition repair strategy. Chilean Spanish is one of such dialects. One of the characteristic features of Chilean is its advancement in terms of *s* aspiration and total sound disappearance. Although complete segmental loss is considered uneducated and is socially stigmatized in Chilean, it is the predominant feature of rapid colloquial speech even among the educated speakers. My analysis focuses on the interaction between s-aspiration, deletion and resyllabification in Chilean Spanish.

Chilean presents an interesting interaction of coda *s* aspiration and deletion. Word-final coda *s* is deleted phrase finally (*una vez* 'one time' and *cinco veces* 'five times' are realised as [u.na.βɛ] and [siŋ.kɔ.βɛ.sɛ[1]], respectively). Otherwise, either deletion or debuccalisation to *h* applies, depending on what follows. *S* is lost before a consonant as in *una vez comí* 'once I ate' [u.na.βɛ.kɔ.mi]. Yet an opacity effect may be observed before a vowel. Due to resyllabification, the coda segment of *vez* is forced into the empty onset position of the following word, but its featural specification changes. It is thus *h* that surfaces as the onset of the following word – a visible trace of *s*-aspiration with no manifest motivation in a surface-based approach (*una vez es demasiado* 'one time is too much' [u.na.βɛ.hɛ.ðɛ.ma.sja.ðɔ]). Focusing on the string *vez es* presented above*,* one can observe that it is an exact parallel of the plural *veces* in input terms: both strings consist of the same sounds. The only difference between the two lies in the presence of a word boundary in *vez es* against a morpheme boundary in the inflected form *veces.* The output of *vez es,* however, is [bɛ.hɛ], with deletion word-finally (in the second word) and aspiration across a word

[1] Note that in Chilean, the pronunciation of *s* and *z,* as well as *c* before *i* and *e* is exactly the same ([s]), which is known as *seseo.* Additionally, voiced stops undergo spirantisation between vowels. I provide the plural form as evidence for the underlying [s] in the word *vez.*

boundary before a vowel, while the output of the plural *veces* is [bɛ.sɛ]. What distinguishes the two sequences of sounds is the fact that the plural *veces* is a separate word, while *vez es* is a phrase belonging to phrase-level phonology. Nonetheless, surface-based models such as standard OT do not make such domain distinctions.

Note that in an output-based model it is impossible to differentiate between the two inputs. It follows from OT architecture that only one output form may be generated by a given constraint ranking based on the same input form. Chilean, however, requires that two different surface forms be generated under the same constraint ranking from the same input. Because OT mechanisms are blind to morpheme or word boundaries at the input level, the plural form input /bɛs+ɛs/ and the input of a string containing a word boundary (/bɛs#ɛs/) are evaluated in the same way. As no constraint referring to a word boundary can be postulated to deal with the second example, there is no way of generating a different output.

In this paper, it will be argued that standard OT is unable to account for the above interaction between *s*-aspiration and deletion. What is more, auxiliary mechanisms designed especially to deal with opacity effects in phonology, such as sympathy (McCarthy 1999), are not equipped with sufficient means to remove all of the obstacles posed by the Chilean data. Several strategies aimed at solving the issue within OT will be discussed, the conclusion being that the most viable option is to draw on the clear distinction between the lexical and post-lexical levels observed in the Chilean data, which calls for the distinction between word-level and phrase-level phonology. It will be demonstrated that *s*-weakening is a phenomenon justly associated with codas while resyllabification is a phrase-level process with the power to shift prosodic borders but not inhibit word-level phonological changes. This is perfectly grasped within a Derivational OT analysis (Rubach 1997, 2000; Kiparsky 1999, among others).

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