Segmental cues to the Phonological Phrase in Spanish
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Although the level of the Phonological Phrase (PPh) has been well established as a constituent of the Prosodic Hierarchy in several languages (Nespor and Vogel 1986, Selkirk 1986, 2011, Hayes 1999, Truckenbrodt 1995, 1999, among many others), little work has been done on Spanish. Prieto (2006) suggested that there is rhythmic and intonational evidence for the PPh in Spanish. She found that broad focus utterances are chunked in prosodic constituents, separated by boundary tones or by partial pitch reset. She identified each constituent as a PPh. However, no non-prosodic evidence has been brought forth in favor of the existence of the PPh. Segmental evidence constitutes a more solid proof of prosodic constituency, as it is independent of the prosodic module. Therefore, the aim of this study is to find evidence for the existence of the PPh in Spanish.

We examine two well-known segmental processes in Spanish: voiced stop spirantization (Hualde et al. 2011) and fricative sibilant voicing in coda position (Campos-Astorkiza, to appear). Voiced stops /b, d, g/ are spirantized except in when preceded by a nasal or a pause. The voiceless alveolar fricative /s/ is voiced in coda position when preceding a voiced consonant. These two processes occur across words, namely when the voiced stops occur word-initially and /s/ occurs word-finally, but the commonly assumed generalization (prescriptively taught) is that /b, d, g/ are not spirantized when preceded by a pause and /s/ is not voiced when followed by a pause. We build on the vaguely used term ‘pause’, and explore experimentally our impressionistic observation that these two processes can be blocked even in the absence of a pause, in certain syntactic environments such as the boundary between a subject and a verb. Our hypothesis was that the lack of spirantization of word-initial /b, d, g/ and the lack of word-final /s/-voicing would constitute evidence for the presence of a boundary between two words, and we pursued the idea that this boundary would be indeed the boundary of a prosodic constituent higher than the Prosodic Word, namely the PPh.

334 stimuli were designed containing sequences of words in the appropriate segmental make-up, in which /b/, /d/, /g/ were word-initial and /s/ was word-final. Four speakers from Central Spain were recorded, and the degree of spirantization of /b, d, g/ and the degree of voicing of /s/ was analyzed in detail using Praat.

Preliminary results indicate that the syntactic context of the sequence formed by a Subject and a Verb leads to the presence of only 40% of approximant realizations of /b, d, g/, compared to 90-100% of approximants in other contexts such as clitic-verb, determiner-noun, noun-adjective or verb-object. When the voiced stops start a syntactic clause (following an adjunct clause, with no pause), the percentage of occurrence of approximants goes down to almost 0%. For /s/, similar results obtain. These results suggest that the Subject and the Verb are not in the same PPh but in distinct ones, and the same can be said of two clauses, with more force.


