

Approach to prosodic labeling within the framework of the autosegmental-metrical model

There has been an increasing amount of literature on the autosegmental-metrical model (AM) since the doctoral thesis of Janet Pierrehumbert (1980). The labeling system for the Spanish Language or Sp_ToBI (Spanish Tones and Break Indices) was originated from this model. The ToBI system describes the melodic contours as a concatenation of two phonological units: pitch accents, which are associated with the lexical stress, describe the tonal movements which occur in the vicinity of the accented syllable; and boundary tones, by contrast, are associated with melodic or prosodic boundaries. The representation of both units is carried out through two extreme levels, i.e. the high represented with H (High tone) and the low represented with L (Low tone). When both levels are associated with the tonic syllable, they are marked with *; when they are linked to phrase boundaries, they are marked with the symbol %.

This system of phonological transcription has been applied to the Spanish language in numerous works. The first formal proposal for Spanish was made by Beckman *et al.* (2002), and followed by several subsequent studies (e.g. Face and Prieto, 2007; Estebas-Vilaplana and Prieto, 2008; Prieto and Roseano (coords.), 2009-2010).

Fernández Planas and Martínez Celdran (2003) considered that phonological structures must be defined on the basis of objective and rigorous data provided by a comprehensive phonetic analysis. In our work *Estudio comparativo preliminar de la entonación de Canarias, Cuba y Venezuela* (Dorta (ed.), 2013), we presented a proposal for phonetic and phonological labeling which, starting from the basis of the AM model, aims to bring objectivity to the phonological interpretation of pitch accents and boundary tones at the end of intonational phrases. Thus, we took as a fundamental axis the perception threshold established as 1.5 St by Rietveld and Gussenhoven (1985) to determine which tonal movements are relevant and should, therefore, be considered in the labeling.

In this poster, we intend to show the pitch accents and boundary tones system established in Dorta (ed.) (2013), which is being applied currently in the phonetic and phonological studies developed by the research group ProFonDis¹, to which the authors belong. We will show the phonetic variants and phonological invariants that were found from an experimental corpus retrieved considering the methodology of the international project AMPER (*Multimedia Atlas of Prosody in the Romanesque Space*), whose main objective is the description of the intonation –declarative and interrogative– and accent of the geoprosodic varieties of Romance languages according to three parameters (fundamental frequency, duration and intensity). This proposal has been developed from a corpus of analysis formed by 702 sentences (351 declaratives and 351 interrogatives) with SVO structure, uttered by 13 women without higher education from urban areas of the Canary Islands, Cuba and Venezuela.

Our proposal simplifies the system of pitch accents and boundary tones, since we consider as variants of the same accent what other studies have established as phonological invariants. However, this proposal is provisional until it is ratified in subsequent analysis in the framework of the project (FFI2014-52716-P), where we will analyze 5 Spanish varieties (Canarian, Cuban, Venezuelan, Colombian and Texan Spanish).

¹ Currently, this research group is involved in the Project *Comparative study of intonation and accent in border areas of Spanish* (FFI2014-52716-P), project of R & D (Programa estatal de fomento de la investigación científica y técnica de excelencia, subprograma estatal de generación del conocimiento [2015-2017, call 2014]).

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