

Hiatus as phonetically re-articulated vowels in Italian

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Italian has a distinctive length opposition for consonants (e.g., *pala* /'pala/ ‘shovel’ vs. *palla* /'palla/ ‘ball’), but not for vowels. In effect, vowel length in Italian is considered to be allophonic: vowels are short when unstressed and also in stressed position within a closed syllable (*Marte* /'mar.te/ ['mar.te] ‘Mars’), but long in stressed position in an open syllable (*mare* /'ma.re / ['ma:.re] ‘sea’). Nevertheless, there exist words (*corte* /'korte/ ‘court’ vs. *coorte* /ko'orte/ ‘cohort’, as well as *re* /'re/ ‘king’ vs. *ree* /'ree/ ‘guilty’) whose orthographic form suggests a phonological distinction [1, 2], which could be driven by length. Italian speakers consider the vowels in ‘coorte’ and ‘ree’ as heterosyllabic, as reflected in standard syllabication patterns (co-orte, re-e), and are therefore hiatuses.

The only study concerning such vowels [3] points out diverging articulatory strategies for their production. More specifically, the simple short vowel is articulated with greater apical peripherality than the hiatus. Because of this, and because of the presumed heterosyllabicity, we hypothesise that such vowels may best be described phonetically as re-articulated vowels. The situation may not be dissimilar to fake consonantal gemination in English, such as in ‘dim morning’ or ‘ship partner’, where the consonant can either simply be lengthened or re-articulated. In the case of Italian vowels, we posit that such re-articulation happens via glottal mechanisms that create a perceived syllabic boundary within the vowel itself. For this experiment, a corpus of non-sense words was therefore set up, so as to have the same structure for all pairs contrasting a phonetically long vowel and a hiatus: CV'CVCV vs CV'CVVCV ([ta'ta:pa] vs [ta'taapa]) and CVCV'CV vs CVCV'CVV (e.g., [tata'pa], [tata'paa]). We recruited 20 L1 Italian speakers, aged between 20 and 30, who were asked to read the target words within the frame sentence '*Ho detto la parola X tranquillamente*' ('I said word X calmly'). Speakers sat in a sound-proof booth, and the acoustic and electro-glottographic (EGG) signals were recorded, thereby obtaining a total of 480 target realisations. An initial inspection of the data with Praat [4] showed the use of various strategies by speakers; beyond duration, which is systematically longer for hiati than for long vowels, hiati generally also have different patterns for intensity and f_0 and in some cases glottalization (see figure 1). EGG data were not yet analysed, but will hopefully confirm the existence of laryngeal mechanisms used to differentiate hiati and long vowels, thereby confirming the status of such hiati as re-articulated vowels in Italian.

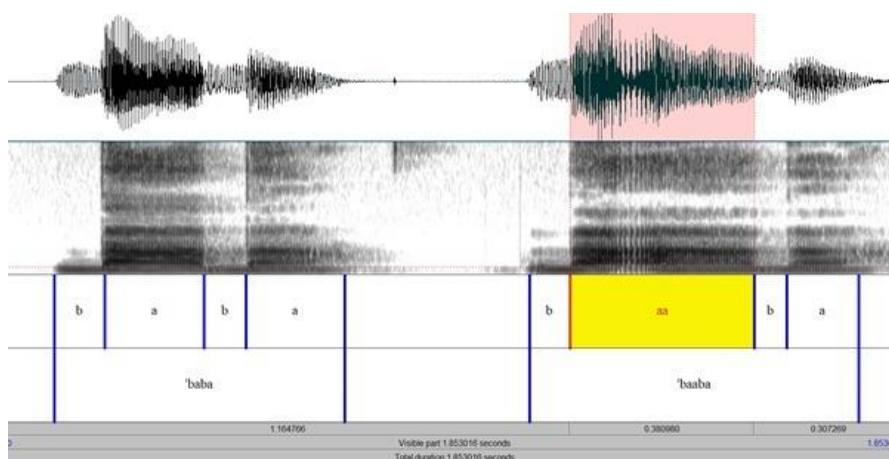


Figure 1. Example of duration differences between long and double vowels in Italian.

References

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