

Vowel length in two dialects of Liguria: Diatopic variation and change in progress

In this paper, we aim at offering an experimental phonetic analysis of vowel length in two Gallo-italic dialects of Liguria: the one spoken in Porto Maurizio (Imperia), belonging to the Western Ligurian type, and Genoese.

Although Ligurian dialects show a high degree of uniformity, partly as an effect of Genoese influence on the remaining dialects over the centuries (Toso 1995: 37), they nonetheless display many differences, both in the lexicon and other structural domains. In particular, they have been reported to differ with respect to the occurrence and the distribution of contrastive vowel length (= VL; cf. Forner 1975 and 1988; Loporcaro 2009 [2013]: 93 and Loporcaro 2015: 89-91; Benincà et al. 2016; cf. also Ageno 1957 and Ricciardi 1975). While some peripheral dialects lack contrastive VL altogether (Ventimigliese: cf. Azaretti 1982: 24-25), at the other extreme, in Genoese, every vowel can be long or short (Toso 1997: 16-17) and VL is contrastive in both stressed and unstressed syllables (the latter being a *rarum* for Romance). The Genoese system thus allows for minimal pairs such as ['le:ze] 'to read' vs. ['leze] 'law', ['po:su] '(I) rest' vs. ['posu] 'I can', etc., and (in unstressed, protonic syllables) [ka:'seta] 'little sock' vs. [ka'seta] 'little ladle', etc. (Loporcaro 2015: 90). This distinction, albeit widespread in the region, is not shared by all Ligurian dialects. For instance, in coastal Intemelian (Ventimigliese, as mentioned above), there is no difference between the stressed [o] in ['sonu] '(I) play' (from Latin *sono*) and ['sonu] 'sleep' (from Latin *somnum*), which is short in both cases. Instead, the Western Ligurian area (including Porto Maurizio) represents a "mixed" situation, since vowel length can be contrastive in stressed syllables, as in ['pe:zu] 'weight' vs. ['pezu] 'worse', but not in unstressed syllables.

In the present research, we provide a comparative study of VL in Genoese and in the dialect of Porto Maurizio. The data on which we have built our experimental phonetic analysis were collected through fieldwork recordings in the two data points, which took place in the course of summer 2016. We decided to rely on read speech. As elicitation technique we have used carrier sentences of two different types, represented by the following examples:

- (1) Mi o dito X pe-a ... votta (Genoese) / A l'ò ditu X pe-a ... votta (dialect of Porto Maurizio)
'I have said X for the time'
- (2) Mi o dito X, miga Y sta votta (Genoese) / A l'ò ditu X, miga Y sta votta (dialect of Porto Maurizio)
'I have said X not Y this time'

In both examples X and Y stand for the target lexical items. As for Genoese, 19 (sub)minimal pairs were considered, including 4 (sub)minimal pairs for protonic VL, while for the dialect of Porto Maurizio the number of (sub)minimal pairs amounts to 11;¹ the speakers were asked to repeat each word three times. The difference between short and long vowels is expected to be larger in the second type of carrier sentence (minimal pair style). The sentences were written in the dialect (no translation from Italian was involved) and were presented to native speakers of both dialects (5 for Genoese and 5 for the dialect of Porto Maurizio) on the screen of a laptop.²

The research questions that we are going to address in this paper are the following:

- (i) Is there a significant difference in the way VL is implemented in terms of vowel duration in the two Ligurian dialects?
- (ii) Are there other phonetic cues to VL (e.g. consonant duration) in the two dialects?
- (iii) As far as vowel length is concerned, the vowel system of Porto Maurizio seems to be more 'unstable' than the one of Genoese. Is that to be considered a sign of an on-going structural change, which is leading this dialect more far away from Genoese and perhaps closer to the Intemelian dialects (as Ventimigliese), in which vowel length is no more contrastive? Or maybe has the influence of

¹ The difference in the number of the target words is due to the more limited number of minimal pairs in the dialect of Porto Maurizio.

² The laptop was connected to a Sennheiser MKE 2 clip-on lavalier microphone by means of a USB Pre 2 audio interface, using a Fostex FR-2LE recorder.

Italian been particularly strong on the dialect of Porto Maurizio? Finally, which role does a sociolinguistic factor such as age play under this respect?

The three questions are answered on the basis of an acoustic analysis carried out with the software *Praat* (Boersma / Weenink 2016) and a script which allows for the automatic extraction of vowel and consonant durations. More specifically, as for (i), we analyze the impact of VL on the phonetic realization of vowels in Genoese and the variety of Porto Maurizio. Regarding (ii), the relation between post-tonic consonants and preceding short and long vowels is assessed in both dialects. Finally, as for (iii), we verify whether the vowel system of Porto Maurizio is really more 'unstable' than the one of Genoese. In order to answer all these research questions, we rely on linear mixed models (see, among others, Levshina 2015: 192-196), performed by means of the software *R* (R Development Team 2016). These statistical tools make it possible to take into account, besides fixed factors such as VL, diatopic variation and age, the role of random factors, such as speaker and target item, in influencing vowel (as well as consonant) duration. Our analysis is mainly based on the data of the first type of carrier sentence, whereas the second (contrastive) type is merely used to provide a cross-check on the results.

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