

An ‘elementary’ analysis of speech sounds in Maltese

In his review of ‘Feature Geometry and Dependency’ McCarthy (1988) writes: “simply put, if the representations are right, then the rules follow”. The aim of this contribution is to define a set of ‘right’ representations in relation with an accurate formulation of constraints and processes in Maltese.

The internal organization of speech sounds in Feature Geometry depends on an Articulator-based and/or a Constriction-based model. Both approaches make use of the privative features LABIAL, CORONAL, DORSAL. However, the features do not have the same extension. In the former model, CORONAL refers to consonantal articulations formed with the tip or the blade of the tongue; in the latter, CORONAL refers to consonants and vocoids formed by the front of the tongue. Hume’s analysis (1994) of the interaction between coronal consonants and front vowels in Maltese is based on this definition of the feature.

We also need a class of ‘Guttural’ consonants, which for Standard and dialectal Maltese include: q, x, ɣ; h, ʕ; h and ʔ. A possible approach is to define a feature PHARYNGEAL to refer to the orosensory pattern of constriction anywhere in the broad region of the pharynx; McCarthy 1994. An alternative analysis is to represent the Guttural consonants with the ‘element’ A; Angoujard 1994 in the KLV framework. In either case we have to account for 1- the *Guttural assimilation* process, by which a high vowel is lowered and an underspecified vowel surfaces as ‘a’; 2- the application of the OCP (a *dissimilation* constraint) which in verbal roots prohibits some co-occurrences between Guttural consonants and allows for some others like the adjacency of radical ʔ (>*q) and h.

Coronal assimilation has been invoked by Hume and others for three distinct processes:

- the ‘I’ quality of the formative vowel in the imperfect when a coronal obstruent, excluding ‘dʒ’, blocks the regressive spreading of the stem vowel ‘U’ quality;
- the assimilation of prefixal ‘t’ to a coronal obstruent, excluding ‘dʒ’;
- the assimilation of the proclitic article ‘l’ to so-called ‘sun letters’, which include ‘ʃ’ but NOT ‘dʒ’. cf. *il- dʒifən / it-ʃʃiən* ‘the vessel(s)’; Comrie 1980.

Radical ‘dʒ’ (<*g) may be adjacent to a coronal obstruent. The assimilation process in *c* and the OCP imply that ‘dʒ’ should not be characterized as CORONAL. Thus, it turns out that CORONAL obstruents (but **not** sonorants) **and** ‘dʒ’ form a class characterized by the element ‘I’ while Gutturals are characterized by ‘A’. For coronal obstruents, this reflects the Arabic and medieval Maltese *plain/emphatic* correlation: it has been transphonologized onto FRONT/BACK vowel contrasts **and** on the representation of these consonants.

The ‘elements’ LABIAL, CORONAL and DORSAL are seated on the same tier in Maltese (they may not combine). The element ‘I’ and its marked counterpart ‘U’ are seated on the same tier; ‘A’ is on a distinct tier (it may combine with I/U). Consonants and Vowels in (Standard and dialectal) Maltese are formed from a combination of ‘elements’ seating on relevant tiers.