

Domain and directionality in Catalan ATR harmony

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Typical of the Romance area is a type of harmony, often referred to as metaphony (umlaut), which is characterized by the role played by a prominent position, namely stress. In some cases the stressed vowel is the trigger, in some cases it is the target. The situation that we will examine is a harmonic system of recent origin in Central Catalan in which there is ATR harmony in a domain defined by stress on the left and the end of the word on the right.

Central Catalan has a seven vowel system in stressed position (1a). In unstressed position the normal system is a three vowel system (1b).

But there is an (increasing) set of exceptional lexical elements that allow a five vowel system (1c). These are old loans, recent loans, and words created by different means, such as truncated words, acronyms, etc., for which the ATR value is not fixed at the moment of introduction. ATR harmony is restricted to the mid vowels e, ε, o, ɔ. In words that contain a stressed mid vowel and unstressed vowels belonging to the "normal" system, i, u, ə, the mid vowel can be open (é, ó) or closed (é, ó) (2a). But when the unstressed vowels belong to the exceptional system (e, o), a stressed open mid vowel is not allowed and only é, ó appear (2b). Thus, since two mid vowels can only cooccur in exceptional lexical elements, it is only in those cases that harmony will be possible.

There are two important restrictions on the domain: a) harmony is triggered only by a following unstressed mid vowel, not by a preceding unstressed mid vowel; b) proparoxytones do not show harmony. These restrictions appear illustrated in (3).

Suppose the domain of vowel harmony is the foot. Since Catalan builds a single foot on the right edge of the word, harmonizing *profe* and non-harmonizing *Quebec* and *Sòfocles* should be represented as in (4). This explains why there is harmony in paroxytones, whose foot contains two vowels, but not in oxytones, whose foot contains one vowel. But this leaves unexplained why there is no harmony in proparoxytones, whose foot would be a harmonic domain, as in *(sófo)kles. We derive this fact from the need for alignment between the domain of harmony and the foot, and the need for alignment between the harmonic domain and the word (5). We will explore several alternatives, including a modification of McCarthy's span theory that allows non-exhaustive parsing of the word in spans (illustrated in (5)).

