

## A representational alternative for lexically-specific phonology

**Purpose.** A number of approaches to lexically-specific phonology are currently entertained (rules cum diacritics, indexed constraints, co-phonologies). All share the idea that lexical entries are divided into groups to which computational instructions then make selective reference. Hence instruction X only applies to lexical items of group A, instruction Y to items of group B and so on. These approaches thus apply distinct computational systems to distinct sets of lexical items. In this talk we present a representational alternative where lexically-specific behaviour involves a contrast in actual lexical entries, rather than their division into groups. Based on data from external sandhi in Kabyle Berber, we show how lexically-specific phonology can be achieved with a single computational system and a lexicon that is not split into groups. We contend that a conceptual advantage of this solution is the absence of diacritics. In the computational perspective, computational instructions make reference to specific sets of lexical items: A, B, C etc. Nothing of that kind occurs in the representational alternative where only regular vocabulary insertion followed by lexically unspecific computation produces the effect.


**Data.** In Kabyle Berber, the prepositions g "in" and f "on" show lexically idiosyncratic behaviour when followed by V-initial words. Before C-initial words, neither geminates, as shown under (1) "when she sits on the little chair" and (2) "when she sits in the room". However, when a vowel follows, f geminates ((3) "in which house will they wait for her?") but g does not ((4) "on which chair was she sitting?"). Since syntactic and phonological contexts are identical (under (1) and (2) as well as under (3) and (4)), the effect observed must stem from an idiosyncratic difference of the two prepositions.

Their contrasting behaviour may also be seen when g and f precede a w-initial word (in the syntactic position called construct state): the w- geminates on the syllabic position of the g which thus remains unexpressed (g + wasif → wwasi "in the river"), while on the contrary f geminates on the position of the initial w- (f + wasif → ffasi "on the river"). This suggests that f bears a lexical specification for gemination.

**Analysis.** An analysis whereby f is a lexical geminate but g is not and /ff/ degeminates before consonants is not viable since the language resolves the contact of geminates with further consonants by schwa epenthesis after the geminate: siff "sand" + rməl "to sift" → siff ərməl. In our case, though,

(1)	melmi	θ-qqim	f	θkursiθ
	when	sit 3fs	on	little chair
(2)	melmi	θ-qqim	g	θəxxamθ
	when	sit 3fs	in	room
(3)	anwa	akərsi	ff	i- θ-qqim
	which.FS	chair FS	on	Comp sit 3fs
(4)	anwa	axxam	g	i ts- ruza-n

f+C does not produce schwa epenthesis and f is not geminated. We thus translate the observation that f, but not g, bears a lexical instruction for gemination into the lexical representations under (5). Specific assumptions regarding syllable structure are not

(5) O O relevant for our purpose: "O" indicates an onset and the right-branching arrow  
 that f bears but g lacks means that f comes with an extra association line that has  
f g no syllabic constituent proper but will dock onto an empty onset in case there is  
one to its right (when followed by a V-initial word). It will remain in its lexical  
state, i.e. ungeminated, before C-initial words that do not offer an empty onset.

**Prospect.** Beyond being representational, based on uniform computation and a single lexicon, our analysis focuses on an understudied and underexploited ingredient of autosegmental representations: the association line. We believe that association should be considered a genuine player in the lexical and computational segments of grammar, rather than being thought of as automatic (a floater associates whenever there is an appropriate constituent). We do not contend that all cases of lexically-specific phonology have a representational solution, but the existence of a representational alternative may lead to reconsider a number of cases discussed in the literature.