

Syllabification in Kabyle Berber: A Constraint-Based Approach

While syllabification in Tashlhiyt Berber is a cornerstone of Prince & Smolensky's (1993) original formulation of Optimality Theory, syllabification in Northern Berber languages, which follow a unique pattern, have received little attention in recent literature. In this paper, I propose an analysis of syllabification in Kabyle, a Northern Berber language, using a constraint-based framework. I show that an apparent exception to cross-linguistic regularities can be explained as a result of a constraint on syllable weight, and thus does not need to be stipulated.

The phoneme inventory of Kabyle contains three phonemic vowels, /i/, /a/, and /u/, which are underlyingly long (Bendjaballah 1996). Also attested in the language is the non-phonemic short vowel [ə], which surfaces as a syllable nucleus whenever a string of two consecutive consonants would lack a nucleus (1).

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|-----|----|----------|-------------|------------------------|
| (1) | a. | /ʒn/ | [.ʒən] | ‘sleep.INF = to sleep’ |
| | b. | /ʒn-γ/ | [.əʒ.nəγ] | ‘sleep-1Sg = I sleep’ |
| | c. | /xðm/ | [.əx.ðəm] | ‘work.INF = to work’ |
| | d. | /xðm-γ/ | [.xəð.məγ] | ‘work-1Sg = I work’ |
| | e. | /agur/ | [.a.gur] | ‘moon’ |
| | f. | /agur-n/ | [.a.gu.rən] | ‘moon-Pl = moons’ |

This distribution presents a challenge because it violates well-established syllable well-formedness constraints. In (1b), [əʒ.nəγ], ə-insertion creates a syllable which lacks an onset and has a coda (VC), which is crosslinguistically marked. The form [ʒə.nəγ], which contains a crosslinguistically preferred CV syllable, does not surface.

Previous approaches couched in a rule-based phonological framework have handled this pattern by stipulating that [ə] is prohibited in open syllables (Bader 1985; Kossmann 1995). Following other work in Optimality Theory, my goal is to explain the underlying properties of syllable structure that result in this pattern, modeled through constraints.

I propose the general constraint on syllable weight *LIGHT (*L), which disprefers light syllables (syllables composed of one mora) (2).

- (2) *LIGHT (*L)
Assign one violation for each syllable composed of fewer than two moras.

In Kabyle, this constraint is ranked higher than Onset and NoCoda. This is why [əʒ.nəγ] surfaces, rather than [ʒə.nəγ], as illustrated in the simplified tableau (3).

(3)

ʒn-γ	*L	Dep	Onset	NoCoda
a. →.əʒ.nəγ		**	*	**
b. .ʒə.nəγ	*!W	**		*

Phonemic vowels are underlyingly long; because long vowels are bimoraic, phonemic vowels are permitted in open syllables (4).

(4) /tizizwa/ [ti.ziz.wa] ‘bees’

[ə] is a short vowel, so an open syllable containing [ə] is a single mora; this is why [ə] does not surface in open syllables. Coda consonants are moraic, which is why [ə] surfaces in closed syllables. The integration of *L into other constraints on syllable structure thus predicts all attested syllable types in Kabyle without stipulations. Summary tableaux are provided in (5-6).

(5)

adrdur	Max	Nuc	*P/C	*Complex	*L	Dep	Onset	NoCoda
a. → a.dər.dur						*	*	**
b. .ad.rə.dur					*!	*	*	**
c. .wa.dər.dur						**!		**
d. .a.dr.dur			*!				*	*
e. ad.rdur				*!			*	**
f. .ad.dur	*!							

(6)

ʒn	Max	Nuc	*P/C	*Complex	*L	Dep	Onset	NoCoda
a. → ʒən						*		*
b. .ʒn			*!					
c. .əʒn				*!		*	*	*
d. .əʒ.ən						**!	*	*
e. .ʒənə					*!*	**		