

A constraint-based analysis of coda consonant reflexes in Haitian Creole

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It is generally accepted that creole lexical items taken from the superstrate language are subject to phonological adaptation, though there is some debate whether they conform to universal markedness constraints or to the constraints of the substrate languages. In this paper I examine the principles governing the diachronic retention, adaptation or deletion of coda consonants in Haitian Creole with respect to the French lexical source, as well as implications for their representation in the synchronic grammar. I propose that an approach making use of ranked, violable constraints (e.g. Bernhardt and Stemberger's 1998 variant of Optimality Theory) provides a unified analysis of the sound changes that took place and reflects the influences of the substrate languages.

The first case examined is the adaptation of the uvular /ʁ/ in Haitian lexical items derived from French. While reflexes of the /ʁ/ are present prevocally as in (1), it was not acquired in coda position (2).

(1) Adaptation of pre-vocalic /ʁ/

	French etyma	Haitian Creole
'rage'	/ʁaʒ/	[ʁaʒ]
'rest'	/ʁœpo/	[ʁepo]
'work'	/ʁavaj/	[ʁavaj]
'tall, big'	/gʁã/	[gʁã]

(2) Coda /ʁ/ loss

'love'	/amuʁ/	[amu]
'evening'	/swaʁ/	[swa]
'garden'	/ʒaʁdẽ/	[ʒadẽ]
'piece'	/mɔʁso/	[mɔso]

This parallels an L2 acquisition pattern in a longitudinal study of English speakers learning French, who acquired /ʁ/ last in coda position (Gerlach 2002). I show how this follows from highly-ranked constraints against features present in /ʁ/ and lower-ranked faithfulness constraints for segments in coda position.

The second case of interest is the adaptation of $\tilde{v}C$ sequences consisting of a nasal vowel and an oral stop. When the stop following the nasal vowel was voiceless, Haitian retained the coda consonant as in French. In the case of a voiced stop, however, a nasal stop was substituted.

(3) Retention of voiceless stop following nasal vowel

	French etyma	Haitian Creole
'convince'	/kɔ̃vɛkʁ/	[kɔ̃vɛk]
'pregnant'	/ãsɛt/	[ãsɛt]
'account'	/kɔ̃t/	[kɔ̃t]

(4) Adaptation of final voiced stop following nasal vowel:

	French etyma	Haitian Creole	
'leg'	/ʒãb/	[ʒãm]	BUT: [ʒãbe] 'to step over'
'order'	/kɔmãd/	[kɔmãn]	BUT: [kɔmãde] 'to order'
'tongue'	/lãʒ/	[lãŋ]	BUT [lãgaʒ] 'parlance, expression'

This unusual adaptation pattern may be explained by a highly-ranked constraint against non-sonorant codas carried over from the substrate languages. The preference for sonorant codas is fulfilled in Haitian as long as it is not too costly; that is, it motivates spreading of nasality within the rime from a nasal vowel to a following stop when other features may be preserved (i.e. [Place, -continuant, +voiced]). By contrast, spreading of nasality to a following voiceless stop is blocked since it would require insertion of [+voiced] (voicelessness would not be preserved). I further suggest that this coda constraint played a crucial role in coda /ʁ/ loss in Haitian. The same markedness constraint can thus motivate quite different outcomes (retention, adaptation, or deletion) given its interaction with other constraints on featural faithfulness.

The present analysis differs significantly from that proposed by Nikiema and Bhatt (2003) for /ʁ/ and by Valdman and Iskrova (2003) for surface $\tilde{v}N$ sequences, who claim respectively that /ʁ/ and voiced stops in these contexts are present in underlying representations despite the fact that they never surface. Such a position may be tenable for bilinguals whose knowledge of the French source may influence the underlying Haitian form, but seems problematic for the monolingual majority who presumably do not have access to the French forms. Valdman and Iskrova (2003) assume the voiced stop must be underlying based on its presence in related forms, as given above in (4). However, the retention of the stop in onsets is explained by the fact that the coda constraint discussed above does not apply in this context. As evidence for their position, Nikiema and Bhatt (2003) cite the forms in (5) in which a putative underlying /ʁ/ apparently blocks regressive vowel nasalization, an innovative and variable process in Haitian.

(5)	<u>Regressive nasalization (optional)</u>		<u>No nasalization</u>
	‘wave’	[lām]	‘tear’ [lam] (c.f. French /laʁm/)
	‘chain’	[ʃɛ̃n]	‘charm’ [ʃam] (Fr. /ʃaʁm/)
	‘friend’	[zāmi]	‘cabinet’ [amwa] (Fr. /aʁmwab/)
	‘family’	[fāmi]	‘form’ [fɔm] (Fr. /fɔʁm/)
	‘apple’	[pām]	‘horn’ [kɔn] (Fr. /kɔʁn/)
			‘hill’ [mɔn] (Fr. /mɔʁn/)

I suggest that the absence of nasality in some forms may be due to avoidance of homophony combined with frequency effects, which favor phonetic change in more frequent lexical items first (Bybee 2001).

Attributing the current facts of Haitian to a diachronic account of constraint interaction influenced by substrate languages eliminates the need for abstract or complex underlying representations. I conclude that a constraint-based framework is useful in understanding the phonology of creole genesis and that this particular case supports the claim of Blevins (2004) that historical sound changes need not be incorporated into a synchronic grammar and lexicon.

References

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