

# Haitian Creole Phonology: Summary and Analysis

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**Abstract:** The present work summarizes the field of Haitian Creole phonology, illustrating the language's sound inventory and addressing three theoretical questions debated by researchers: nasalized high vowels, nasal spreading, and the diachronic effects of rhotic deletion on nasal spreading. Starting points for future research are mentioned throughout.

## 1. INTRODUCTION

Phonology is one of the most intriguing aspects of Haitian Creole (HC). Under the relexification hypothesis, the lexicon of HC came almost entirely from French, so it should follow that French phonology, which governs the pronunciation of the lexicon, should carry over, as well. However, HC phonology is anything but a mere borrowing of French phonemes. Interestingly, some more marked sounds became more prevalent in HC at the expense of less marked sounds, such as the extensive spreading of nasalization to vowels that were oral in French, both intra- and extramorphemically. In this manner, although the phonology of HC is fundamentally based on French, the first speakers of HC altered the basic phonology to form a unique sound system.

This paper is divided into two sections. The first section presents a summary of the HC sound system with occasional comparisons to the contemporary dialect of French to highlight noteworthy similarities and differences. The second section examines more profoundly the *sui generis* phonological phenomena of HC, such as nasalization spreading and the consequences of rhotic deletion from French etyma. Both sections compare research from prominent HC scholars and note agreements, contradictions, and where additional research could be beneficial.

Before a discussion of HC phonology, it is important to define what HC is. Is it the language used by the elite, replete with Gallicisms? Is it the chaotic mixture of French and basilectal Creole spoken by some quasi-bilingual Haitians? Or is it the variety subject to linguistic “crossbreeding,” with an abundance of English or Spanish lexical items? (See Dejean 2003 for further discussion.) The present work concerns itself with the variety of HC spoken by rural Haitians, i.e., the form of HC that has had as little interference as possible from “Francophilic” (Degraff 2003:401) pressure. Reference to urban, upper-class dialects (“French Creole”<sup>1</sup>) is made only when necessary.

In addition, before comparison can be made between HC and French, it is very important to note that HC does not descend from Modern French (cf. Prevallon 1993) but rather a combination of African languages and Gallo-Romance languages such as “Picard, Norman, Champenois, Saintongeais, Wallon, Lorrain, Gascon, Provençal, etc.,” (Hebblethwaite 2001:46). Nevertheless, many HC phonologists do not make this distinction, and even compare HC words directly to modern French words (e.g. Bhatt & Nikiema 2006; Valdman & Iskrova 2009:15). The few creolists who more accurately trace HC’s lineage seem to be overwhelmingly outnumbered. Thus, since the popular sentiment among HC phonologists is that French is close enough to offer insightful information about the status of HC phonology, this attitude is maintained here.

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<sup>1</sup> Herein, this expression refers to the variety of HC with heavy French influence. It should not be interpreted as “Creole French,” which is a somewhat depreciated term for HC itself.

## 2. SUMMARY OF HC PHONOLOGICAL INVENTORY

### 2.1 Consonants

The HC phonemic inventory consists of up to 32 segments (Klein 2006:9), which includes 20 consonants (Johnson & Alphonse-Férère 1972:35), 7 oral vowels, and either 3 or 5 nasal vowels, depending on the classification of [ĩ] and [ũ] (discussed in more detail on page 5).

The consonantal inventory is as follows (Johnson and Alphonse-Férère 1972:35):

Stops: /p, b, t, d, k, g, m, n/

Fricatives: /f, v, s, z, ʃ, ʒ, ʎ, (h)/

Affricates: /tʃ, dʒ/

Approximants: /l, j, w, (ɥ)/

There are a few characteristics about this inventory worth underscoring. First, Johnson & Alphonse-Férère state that /t, d/ are “dental,” or more precisely, “apico-dental” (Alphonse-Férère 1974:45), but given Alphonse-Férère’s classification of /s, z/ as “dental fricatives,” it is quite possible they are using the ambiguous term “dental” to mean alveolar. However, because of the instability of dental versus alveolar in coronal stops in Romance languages, labeling /t, d/ as dental /t̪, d̪/ (or in earlier linguistic terminology, “interdental”) is not out of the question. Second, some phonologists include /h/ in HC’s phonemic inventory (e.g. Cadely 1988a:19; Hebblethwaite 2009:12; Tinelli 1970:66), while others consider it a marginal segment or otherwise not part of HC’s phonology (e.g. Johnson & Alphonse-Férère 1972:35; D’Ans 1968:75-6; Hall 1953:20). Third, certain phonologists insist that /ɥ/ is part of the HC phonemic inventory (always followed by /i/) and not a segment borrowed from French by bilingual Haitians (Alphonse-Férère 1974:86; Hebblethwaite 2009:13; Valdman et al 2007:vi). This is an

especially marked phoneme in HC, since HC has no front rounded vowels, and [ɥ] is the nonsyllabic variant of [y]. Cadely (1988a:37) mentions that wherever /Cɥi/ is found in the HC lexicon, there is a free variant with /Cwi/, which could suggest that /ɥ/ is more characteristic of “French Creole” (see also Alphonse-Férère 1977: 26-7). Fourth, Johnson & Alphonse-Férère note that the HC rhotic could also be classified as an approximant /ɣ·/. Tinelli claims that there is “almost no air turbulence” (1970:63), even though he still uses the term *fricative*, and Cadely (1988b:135-6) puts forth the idea that [ɣ(·)] is the nonsyllabic equivalent of [ɨ]. This research, coupled with the complementary distribution of [ɣ(·)] with the approximant [w] in HC, is interesting evidence in favor of the classification of the HC rhotic as an approximant, but because of the lack of consensus, consequences of sonority ranking (see also Cadely 1988a:28-9), and typographical reasons, the HC rhotic will be written as a fricative /ɣ/.

## 2.2 Vowels

The HC vocalic inventory is as followed (Johnson & Alphonse-Férère 1972:36):

Oral vowels: /i, e, ε, a, ɔ, o, u/

Nasal vowels: /ĩ, ẽ ~ æ̃, ã ~ õ̃, õ̃, ù/

The HC vowels are the subject of great controversy and varying interpretations. Johnson & Alphonse-Férère use /õ̃/ instead of /õ̃/ in their nasal vowel inventory, but given the consensus for /õ̃/ (e.g. Cadely 1988a:19, 2002:436; Hebblethwaite 2009:12; Valdman et al 2007:vi), analogy to /ẽ̃/, and phonetic similarity between the two sounds, /õ̃/ is exclusively used henceforth. Johnson & Alphonse-Férère also include variation among HC speakers between some nasal vowels (represented above with a swung dash). Moreover, the authors claim that “final unstressed /a/ is realized as [ɐ]” (Johnson & Alphonse-Férère 1972:36), which is unattested in the research by all

other HC phonologists, and thus, quite dubious. Johnson and Alphonse-Férère's analysis may have been motivated by the French vocalic inventory, which has two open vowels: [a, ɑ]. While there is consensus that HC has only one phonemic open oral vowel /a/, the best representation of its nasal counterpart is debated. Tinelli (1981:7) transcribes it as /ã/, and Hall (1953:17-19) uses /ã̃/ (a nasalized schwa). Acoustic research is necessary before any representation can become definitive; henceforth, /ã̃/ is used in transcriptions to represent this vowel.

### 3. ANALYSIS

#### 3.1 Nasalized High Vowels

The greatest controversy regarding HC nasal vowels is the status of [ĩ] and [ũ]. While it is difficult to argue that [ĩ] and [ũ] never surface in HC (because the HC definite article indicates nasality in the previous vowel: /mi ã/ → [mĩ ã]), some phonologists claim that [ĩ] and [ũ] are phonemic (e.g. Cadely 2002:436-8; Tinelli 1981:7), whereas others contend that they surface only contextually (e.g. Dejean 1977:363-8; Valdman et al 2007:vi). The debate centers around the question as to whether minimal pairs exist between [i, u] and [ĩ, ũ]. Alphonse-Férère (1983:78) presents the minimal pairs /ũsĩ/ (*sic*) “Voodoo priest” and /usi/ “you are sure,” and /ũfɔ/ “Voodoo temple” and /ufɔ/ “you are strong.” To Dejean and others' defense, since these words pertain to Voodoo, it is possible that they were borrowed directly from African languages and [ĩ, ũ] are merely marginal segments. Moreover, Cadely's (2002:437) list contains mostly Voodoo-related words, and from the list, /pĩga/ “prenez garde,” for example, is transcribed by Johnson & Alphonse-Férère (1972:36) as /pĩŋga/; Valdman et al (2007:555) include <pĩga>, <piga>, and <penga> (/pẽga/) in free variation. An acoustic analysis of /i, u/-ĩ, ũ/ minimal pairs could help resolve this controversy, but as of now, acoustic analyses of HC are lacking.

### 3.2 Nasal Spreading

Another curious phenomenon regarding nasalization in HC is the nasal spreading across syllables to vowels that were oral in French etyma. HC nasal spreading occurs both lexically (e.g. /ãvã/ from [avã]<sup>2</sup>, /mẽnẽ/ from [møne]) and functionally (as with the definite article: /fi/ + |la| → /fi a/ and /gasõ/ + |la| → /gasõ ã/). Although this spreading may at first appear haphazard, HC phonologists, most recently Valdman & Iskrova (2009:9-16), have long been analyzing the intricacies of how this nasal spreading occurs. It may be tempting to characterize creoles as languages that discard most, if not all, marked forms in favor of unmarked alternatives; however, this research demonstrates first, that marked forms (i.e. nasal vowels) can take the place of unmarked forms (i.e. oral vowels), and second, that HC has created systematic rules to govern how the nasalization can spread across syllabic boundaries.

The final peculiarity of HC nasalization that deserves mention is the contrastive distribution of oral and nasal vowels in nasal environments. This is best seen in (N)VN syllables where a minimal pair exists: (N)VN and (N)ṼN. Two such examples included in Valdman's dictionary (2007:530, 532) are /møn/ "mountain" and /mõn/ "world" (492), and /pan/ "breakdown" and /pãn/ "to hang." On the surface, syllables of the type  $\sigma[\dots\check{V}N]$  are quite common cross-linguistically, in both languages with phonemic nasal vowels, such as French (cf. Delveaux et al. 2008), and nonphonemic nasal vowels, such as English and Spanish. Coarticulatory phonetic constraints make a NVN syllable (i.e. with V [-nasal]) even more

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<sup>2</sup> Henceforth, slanted brackets shall refer to HC transcriptions and square brackets to French transcriptions. This is motivated by [French output] → /HC input/, following Russell-Webb (2008). Here, this notation does not necessarily indicate broad vs. narrow transcriptions or underlying vs. surface forms, unless the transcribed language is specified.

uncommon. The most popular theory to support the viability of these syllable structures in some HC words is rhotic deletion from French etyma.

### 3.3 Rhotic Deletion

The consequence of etymological rhotic deletion, noted by Cadely (2002:442-9) and Nikiema & Bhatt (2003:63-6), among others, is the maintenance of [-nasal] of vowels in the sequence VN, both inter- and extrasyllabically. The French rhotic surfaces both in the onset before any vowel, or in the coda, whereas the HC rhotic can only be realized in the onset before front vowels, and never in the coda. As a phonotactic consequence, many HC words from French etyma containing [ʀ]<sup>3</sup> lost the surface representation of the rhotic: e.g. [fɔʀm] → /fɔm/. Proponents of the significance of this etymological rhotic deletion claim that the rhotic is still present in the HC underlying form (HC: /fɔʀm/ → [fɔm]), and this underlying representation is enough to preserve the feature [-nasal] of the vowel. While this argument is based on theoretic grounds (i.e. the underlying form), it can be expanded to explain minimal pairs on the surface level, such as /ʃãm/ “room” (from [ʃãbr]) and /ʃãm/ “Voodoo charm” (from [ʃarm]). The phonetic consequence of coarticulation calls into question the validity of these minimal pairs, especially /mɔ̃n/ “world” and /mɔn/ “mountain” (NVN), which is preserved by other nasalization-blocking factors mentioned by Cadely (2002:442-9). In addition, the rhotic-deletion theory contradicts older lexical nasalization rules proposed by Tinelli (1974:345-9), who claims that HC <domi> is best transcribed /dɔ̃mĩ/ (contra Cadely 2002:442). Basically, the legitimacy of the rhotic-deletion theory is part of a greater question (which is, unfortunately, beyond the scope

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<sup>3</sup> The French rhotic demonstrates great dialectal and allophonic variation. [ʀ] is used herein since it is the basic allophone of the Parisian dialect.

of this discussion): how much phonological importance can the etymon have on the surface of the derivative.

#### 4. CONCLUSION

HC phonology has been the subject of academic research since the recognition of HC as a bona fide language and not a degenerate form of French. Since then, phonologists have come to agree on many of the fundamental aspects of HC, such as the lack of front rounded vowels and the diverse spreading of nasalization to make the HC lexicon unique. However, there are still several areas that are in need of further phonological or phonetic research. These areas include the precise articulation of the HC rhotic /ʁ(·)/, the phonemic status of [ĩ] and [ũ], and the extent to which coarticulation (that is, the nonphonemic sound “side effects” that are generated from intermediate movements of the articulators) affects (N)VN syllables. This research would not only be beneficial to augment linguists’ understanding of HC, but also further underscore the individuality of HC as a veritable language, and not, as some exceptionalists propose, a non-universal acquisition of French.

#### References

- Alphonse-Férère, Gérard. 1974. Haitian Creole sound-system, form-classes, texts.
- Alphonse-Férère, Gérard. 1977. Neglected front rounded phonemes in Haitian Creole. *Journal of the International Phonetic Association* 7. 23-7.
- Alphonse-Férère, Gérard. 1983. Nasalized vowels and semiconsonants in Haitian Creole. *Journal of the International Phonetic Association* 13. 76-81.
- Bhatt, Parth, and Emmanuel Nikiema. 2006. Empty positions in Haitian Creole syllable structure. *The structure of Creole words: segmental, syllabic and morphological aspects*, ed. by Parth Bhatt and Ingo Plag, 85-105. Tübingen: Niemeyer.

- Cadely, Jean-Robert. 1988a. Représentations syllabiques et distribution des diphtongues en créole haïtien. *Études Créoles* 11. 9-40.
- Cadely, Jean-Robert. 1988b. L'opposition /y/ : /w/ en créole haïtien: Un paradoxe résolu. *Canadian Journal of Linguistics* 33. 121-42.
- Cadely, Jean-Robert. 2002. Le statut des voyelles nasales en créole haïtien. *Lingua* 112. 435-64.
- D'Ans, André Marcel. 1968. Le créole français d'Haïti. Étude des unités d'articulation, d'expansion et de communication. The Hague, Paris: Mouton.
- DeGraff, Michel. 2003. Against creole exceptionalism. *Language* 79. 391-410.
- Dejean, Yves. 1977. Comment écrire le créole d'Haïti.
- Dejean, Yves. 1993. An overview of the language situation in Haiti. *International Journal of the Sociology of Language* 102. 73-83.
- Delvaux, Véronique, Didier Demolin, Bernard Harmegnies, and Alain Soquet. 2008. The aerodynamics of nasalization in French. *Journal of Phonetics* 36. 578-606.
- Hall, Robert Anderson. 1953. *Haitian Creole: grammar, texts, vocabulary*. Philadelphia: American Folklore Society.
- Hebblethwaite, Benjamin. 2009. Scrabble as a tool for Haitian Creole literacy: Sociolinguistic and orthographic foundations. *Journal of Pidgin and Creole Languages* 24. 275-305.
- Hebblethwaite, Benjamin. 2001. The unfolding of the preposition and affix *de* in Latin, Gallo-Romance and Haitian Creole. *Revue Roumaine de Linguistique* 46. 45-68.
- Johnson, Bruce Lee, and Gérard Alphonse-Fère. 1972. Haitian Creole: Surface phonology. *Journal of the International Phonetic Association* 2. 35-9.
- Klein, Thomas B. 2006. Creole phonology typology. The structure of Creole words: segmental, syllabic and morphological aspects, ed. by Parth Bhatt and Ingo Plag, 3-21. Tübingen: Niemeyer.
- Nikiema, Emmanuel, and Parth Bhatt. 2003. Two types of R deletion in Haitian Creole. *Phonology and Morphology of Creole Languages*, ed. by Ingo Plag, 43-67. Tübingen: Niemeyer.
- Previllon, Jean. 1993. What's in a name: An awakening of the Haitian linguistic consciousness (an argument for Haitian as the native language of Haitians).
- Russell-Webb, Eric. 2008. Formalizing Creole sound change: An optimality theoretic account. *Journal of Pidgin and Creole Languages* 23. 227-63.

Tinelli, Henri. 1970. Generative phonology of Haitian Creole.

Tinelli, Henri. 1974. Generative and creolization processes: Nasality in Haitian Creole. *Lingua* 33. 343-66.

Tinelli, Henri. 1981. *Creole phonology*. The Hague; New York: Mouton.

Valdman, Albert, and Iskra Iskrova. A new look at nasalization in Haitian Creole.

Valdman, Albert, Iskra Iskrova, and Benjamin Hebblethwaite. 2007. *Haitian Creole-English bilingual dictionary*. Bloomington, IN: Indiana University, Creole Institute