THE NASALIZATION OF THE HAITIAN CREOLE DETERMINER *LA* IN NON-NASAL CONTEXTS: A VARIATIONIST SOCIOLINGUISITIC STUDY

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THE NASALIZATION OF THE HAITIAN CREOLE DETERMINER *LA* IN NON-NASAL CONTEXTS: A VARIATIONIST SOCIOLINGUISITIC STUDY

This study focuses on the nasalization of the postposed determiner */la/* (*LÃ)* after an oral segment (e.g. *chat la/lã* [ʃatla/lã] 'the cat', and *peyi a/an* [pejija/ã), a linguistic environment where the nasal variants generally do not occur. In his 1991 pilot study, Valdman demonstrated that there was a correlation between younger middle-class Port-au-Prince speakers and the nasalization of the determiner when following an oral segment. I used a variationist sociolinguistic approach to investigate the issue more extensively and to provide substantive answers to three research questions: (1) Has this linguistic change extended to other social groups, for example, to monolingual speakers of Haitian Creole? (2) Are there linguistic factors conditioning the change, for example, the phonological features of vowels in word-final syllables? (3) Is there a correlation between Frenchified features (e.g. front rounded vowels, postvocalic [r]) and the nasalization of the determiner in non-nasal environments? The corpus includes three sets of data gathered from pair interviews (P), individual interviews, (I) and data elicitation (E) conducted with 32 natives of Haitian Creole. The speakers' social profiles were coded for age, sex, geographical location, occupation, education and level of bilingualism.

The results show that the nasalization of the determiner *LA* in non-nasal contexts has been extended to speakers of different social status, particularly to monolingual speakers as well as those living in different geographical areas of the country (i.e. urban and rural). Regarding the

effect of linguistic environments, the results reveal that high vowels favor *LÃ* across the board. However, *LÃ* does not occur with low vowels in open syllables as a result of vowel lengthening, which then blocks vowel nasalization (e.g. *papa a* [pap**a:**]/**papa an* [pap**aã**] 'the father'). Finally, the study indicates a link between Frenchified features and nasalization of the determiner for some speakers and not for others. Even though Frenchified features occurred less frequently among the monolingual speakers, those with average or higher level of education nasalized the determiner more than their peers when these features were present.

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Chapter I: Introduction

It is commonly noted that in all human societies, individual members differ in the way they speak. Some of these differences are idiosyncratic, while others vary systematically with social factors (e.g. sex, socio-economic status, education, geographical location, social networks; see Guy 1988; Labov 2006). Creole speaking communities are not exempt from these distinctions. However, unlike the cases of social stratification observed in non-creole communities, such as English spoken by the various social groups of New York city (Labov 1966), the analyses of social stratification in the creole languages are often described on the basis of a post-creole continuum situation, that is, a continuum of varieties of a creole between the most and the least close to its European lexifier (see DeCamp 1971; Bickerton 1980). According to this view, the creole variety of monolingual speakers is more distant from the lexifier language (i.e. the European language) than the creole variety of educated upper middle-class speakers who have contact with it. Unfortunately, because there have been few variationist sociolinguistic studies done on creole languages, particularly on Haitian Creole (HC), too little is known about this linguistic situation.

The study presented here is a contribution to sociolinguistic research on language variation in HC. Specifically, on the varieties of HC spoken by both monolingual and bilingual speakers. Using methods of variationist sociolinguistics, this study examines the factors as well as the different situational contexts that influence the use of nasalization of the determiner *LA* in non-nasal environments, a language change that has been claimed to be led by bilingual speakers (Valdman 1991; 2015), but which has not received much attention. This study also analyzes the relationship between nasalization of *LA* (i.e. [lã], [ã] or *LÃ*) in non-nasal environments and *Kreyòl swa* 'silky Creole' (see Fattier-Thomas 1984; Valdman 2015), a variety of HC widely spoken by bilingual Haitians.

The present chapter opens with an overview of the sociolinguistic landscape in Haiti (§1.1). Then follows a discussion of the issue of variation in HC, including the social variety known as *Kreyòl swa* in (§1.2). Section 1.3 extends the discussion to a development involving the nasalization of the determiner in non-nasal environments, and a brief summary of the research findings. Section 1.4 presents the outline of the thesis.

1.1 Overview of the sociolinguistic landscape in Haiti

1.1.1 The status of French and HC in Haiti

French and HC are currently the two official languages of Haiti. However, it was not until 1918 that French was instituted as official language. The 1987 Constitution officialized both languages but recognized HC as the language shared by all Haitians (see Valdman 2015: 358). Unlike HC, French is only spoken by a minority of the population, about 5-10% (Valdman 1988; Doucet 2011). There are reasons to think that the rate of bilingual speakers in Haiti may be higher among Haitians with higher levels of schooling that has given them the ability to express themselves and attain a certain level a proficiency in the language (see Zéphir 1997). However, in present day Haiti, the elite does not necessarily constitute the only group with access to French. In fact, the rise of sociopolitical crises in Haiti over the past few decades (riots, protests, kidnappings, political unrest, etc.) has forced many Haitians from the elite to either leave the country or to stay and send their family overseas to live in the neighboring English-speaking countries (e.g. the United States, the Bahamas, etc.). Consequently, there is a new generation of young Haitians (of bilingual parents) growing up with more proficiency in English than French. This suggests that the traditional French-speaking elite that is often being referred to in the literature (i.e. wealthy Haitians with educated parents or family ties) might be on the verge of shrinking, as they constitute a much older

group. However, those with a certain level of formal education, who have learned French in the context that Zephir (1997: 396) characterizes as "foreign" language, constitute a significant group of bilingual speakers in the country. Many of them originated from monolingual families, low-income neighborhoods or rural areas of the country and for them, the knowledge of French is a significant component in maintaining social mobility and power, because fluency in French constitutes "a symbol of the refined and cultivated aspect of Haitians life" (Buchanan 1979: 300).

Back in Haiti, the sociolinguistic relationship between HC and French is complex and subject to controversy. It is traditionally described as being diaglossic (see Ferguson 1959), that is, a community where French, the prestigious language, is used in public contexts (e.g. education, media, administration), while HC is used in private contexts to conduct everyday activities.

The use of the term diglossia in the description of the language situation in Haiti has drawn criticism, particularly from Dejean (1983; 1993), who argues that it does not accurately describe the linguistic situation in the country. Similarly, Valdman (2015: 363-4) argues that term diglossia cannot be used to describe the linguistic situation in a country where over 80% of the population is monolingual. Instead, he points out that the diglossic situation is restricted to the elite bilingual Haitians, meaning that in their case French serves as the formal register and HC as the informal one. As for the monolingual speakers, he claims that HC serves all communicative needs. One of the issues that has been neither mentioned nor researched in the description of the Haitian linguistic situation is codeswitching, i.e. where both languages are used by the same speaker in the same situation, perhaps for different sociolinguistic and stylistic purposes (e.g. level of formality). Empirical evidence from sociolinguistic interviews as well as media broadcasts provided in this study demonstrates that bilingual speakers use both languages in public contexts (e.g. during church sermon, at the parliament, press conference, radio talk show, etc.). It is worth noting that

the HC variety that co-occurs with French during codeswitching is generally *Kreyòl swa*, since it has become increasingly used by bilingual speakers when they make public speeches; importantly however, French remains highly valued by this speaker group, especially for administrative purposes and communication with the outside world.

1.1.2 Language and education

Although HC is the primary language spoken by most Haitians at home and in their daily lives, French has long served as the language of instruction in many schools in Haiti, including public schools. An educational reform, known as Réforme Bernard, was launched in 1979 to address this issue. The main goal of this reform was to implement HC as the language of instruction during the first four years of primary education and the teaching of French as second language (see Valdman and Joseph 1980; Locher et al. 1987. The use of HC in the early years is important because of the high-dropout rate. Hebblethwaite (2012: 268) reports that only 46.2% of Haitian students remain in school by the sixth grade. He also notes that the drop-out rates have decreased during the first four grade levels because HC has a more important role during these grade levels. But the drop-out rates increase to about 30% by grades 5th and 6th as a result of French taking over the curriculum (also see Hadjadj 2000; Locher 2010). Unfortunately, the reform did not meet its objectives. Not only was the Bernard reform poorly implemented (e.g. lack of pedagogical material in HC and no training resources programs for teachers) but also it faced various obstacles, as well as backlash from skeptical monolingual parents and teachers who mistakenly believed that the reform would completely replace French with HC in the school system. Another major weakness of the reform was the fact that the Haitian government did not have enough control over the school

system to implement the reform, considering that only 15-20% of Haitian schools are public and thus managed by the government.

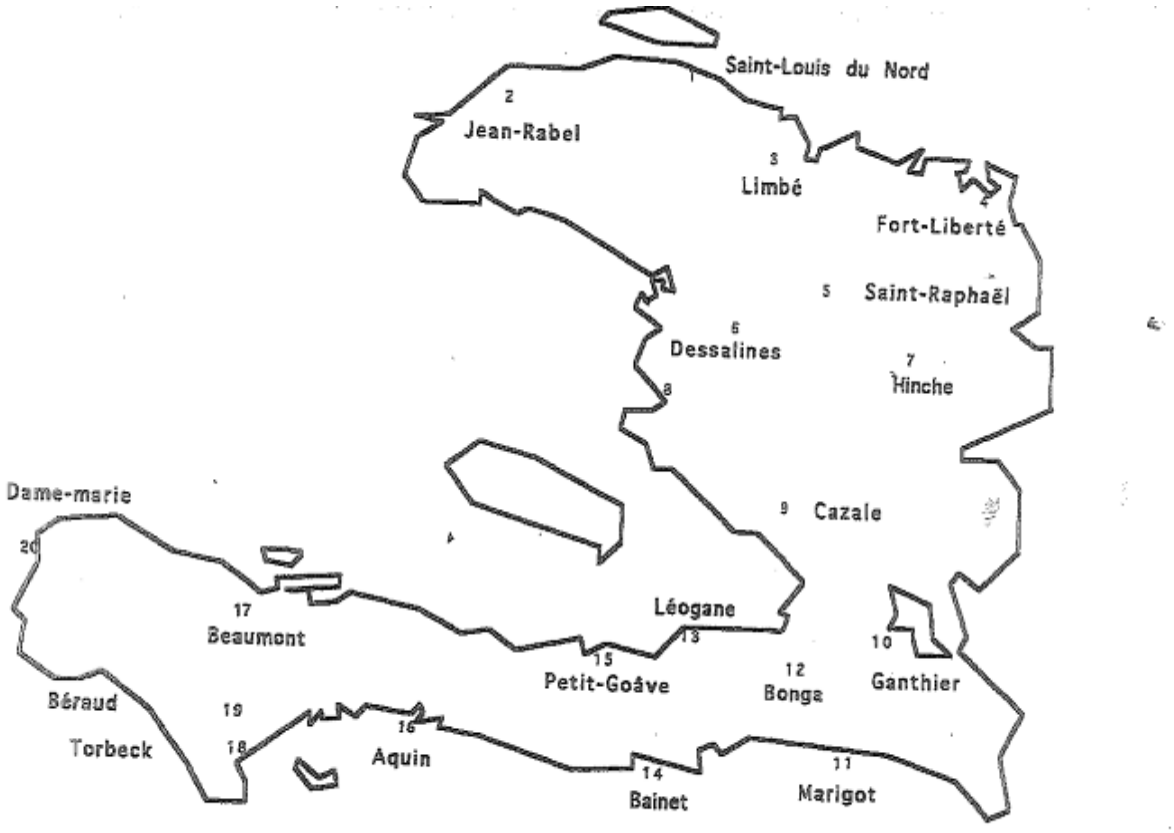
Nevertheless, since 1979 there has been growing acceptance of the place of HC in early education. For instance, there have been standard tests developed in HC for students in primary grade levels. In 2014, a Haitian Creole Academy, *Akademi Kreyòl Ayisyen*, was approved and officially recognized by the Haitian government as the institution in charge of regulating the language. While many linguists, education specialists, and government officials recognize the linguistic barriers created by the predominance of French in the Haitian education system, they remain divided over the role that these two languages should play in Haiti's educational system. Some linguists (e.g. Dejean 2006, 2010; DeGraff 2010) go further than the Bernard reform and advocate for HC as the unique language of instruction and for instruction of French as a second language.

1.2 Variation in HC

1.2.1 Diatopic variation

Diatopic variation in HC is an area that had not been studied until the first publication by Hyppolite's *Les origines des variantes du créole haïtien* (1949), followed by two topolectal studies: Orjala's A Dialect Survey of Haitian Creole (1970) and Dominique Fattier's *L'Atlas linguistique d'Haïti: contribution à l'étude de la genèse d'un créole* (1998). These studies distinguish three geographical varieties of HC: Northern HC, spoken in the area of Cap-Haïtien (see #3 in map 1.1), Western or Central HC, spoken in the metropolitan area of Port-au-Prince (#9 and 13), and Southern HC, spoken in the area of Les Cayes (#18 and 19).

Fig 1.1. Data collection points



Source: Fattier 1998, p. XXXIX)

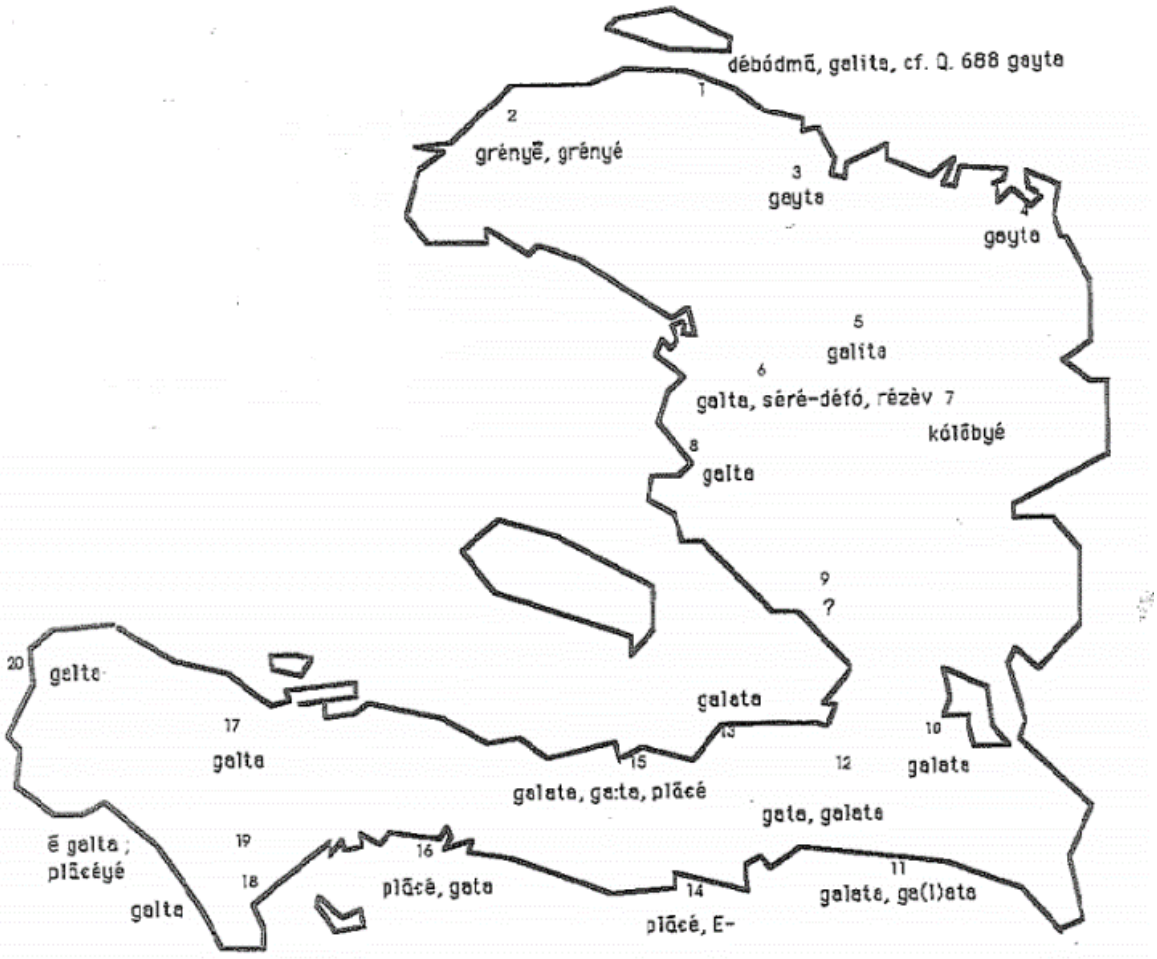
Some of the common phonological variables found across these regions include the alternations between /p/ and /k: [ʁespõsab]~[ʁeskõsab] 'responsible', /dl/, /dj/, and /gl/: [dlo]~[djo]~[glo] 'water', /j/ and /ʒ/: [loʁaj]~[loʁaʒ] 'cloud', and /ʁ/ and /w/: [bʁa]~[bwa] 'arm', [bʁav]~[bwav] 'brave, courageous' (see map 1.2). In addition, these studies present different diatopic variation at different linguistic levels, especially morphosyntactic and lexical. For instance, as shown on the third map below, the variants for the word 'attic' can be heard as *galta* [galata] in the western part of Haiti, *gayta* [gajta] in the northern region, *grenye* [grenye] in the

northeastern region, and a three-way variation between *gayta*[gajta], *galta*[galta] and *planche(ye)*[plãʃe (je)] in the southern regions.

Fig 1.2. Phonetic variants for the word 'brave' in HC

(Source: Fattier 1998 p. 521, Map 612)

Fig. 1.3. Lexical variants for the word ‘attic’ in HC



(Source: Fattier 1998 p.20, Map 654)

These studies also mention various morphosyntactic features that are specific to the Northern dialect known as Capois. These features are described in greater detail in a recent sociolinguistic study *(*Valdman, Villeneuve & Siegel 2015). A major morphosyntactic feature is the possessive: *sè m*wen vs. *sè a mwen* (*sèranm*) 'my sister', and the third person singular variants *i/y* which alternate with the Standard HC *li*. The Capois dialect, as termed by Haitians, "*pale moun Okap*", constitutes the most salient geographical variety of HC. However, this variety is frequently subject to depreciative attitudes, as Capois speakers face the predominance of Port-au-Prince Creole, the standard HC variety that is found in writing and mainly spoken in the media. In fact, there are scant examples of regional features in HC texts, with the exception of Jacques Garçon (2009)'s texts published in a Haitian periodical called *Haiti en Marche* (e.g. *i mouri, l ale ake tout sa i te konnen* 'she dies, she goes with all that she knew.'). In his writing, Garçon explicitly uses the Capois features to reflect his grandmother's speech. The only marked morphophonological variant in the South is the progressive marker *pe* instead of *ap*, as used in Central Haitian Creole.

1.2.2 Diastratic (sociolinguistic variation)

Diastratic variation is a very much understudied aspect of the linguistic situation of Haiti, hence my motivation to devote my dissertation to it. There have been only two studies that used variationist sociolinguistic methods. The first one is a pilot study published by Valdman in 1991. In this study, he analyzed the nasalization of the determiner after an oral segment (e.g. *tab lan* [tablã] for *tab la* [tabla] 'the table') and found the nasal variant to be associated with the speech of the younger middle-class bilingual speakers of Port-au-Prince. The second study (Valdman, Villeneuve, & Siegel 2015) also used a variationist sociolinguistic approach to examine 9 features of Capois with respect to speakers' social status (age, sex, locality) and added an epilinguistic

(attitudes toward variants) component. It analyzed the influence of Standard HC on Capois, which revealed diastratic variation in the dialect. The study also provided a rigorous sociolinguistic analysis of the variation between the third person singular (3SG) Capois variants: *i/y* and SHC: *li/l.* The results revealed that rural speakers of Capois were more likely to use the Capois variant than their urban peers, hence the influence of locality as an important social factor. While the Capois variants were favored in postvocalic contexts by both groups of speakers, urban speakers were significantly more likely than their rural peers to use the full standard variant *li* in post consonantal contexts. These two studies are reviewed in more detail in the next chapter.

1.2.3 Frenchified HC or *Kreyòl swa*

Another variety that has been observed but not fully researched is Frenchified HC, termed *Kreyòl swa* 'soft/silky Creole' (Fattier-Thomas 1984). This variety is usually associated with the speech of the Haitian elite and those with proficiency in French. According to Valdman (2015: 351), this variety is closer to French because it contains front rounded vowels œ], [ø], [y], the post-vocalic /r/, and fewer nasal vowels in nasal environments (e.g., *kana* [kana] for *kanna* [kãna] 'duck'). The present study, however, shows that the features of *Kreyòl swa* have extended to monolingual speakers. These features might have been adopted as a prestigious form and vary with the level of formality. Evidence presented in this study suggests that this HC variety alternates with French in the speech of bilingual speakers, which raises the question of how to distinguish *Kreyòl swa* from French since this HC variety contains Frenchified features.

1.2.4 Standard Haitian Creole (SHC)

Standard HC (SHC) is based on the Central topolectal variety and is generally free of the variants of the Northern (or Capois) and Southern varieties (e.g. Progressive marker in SHC: *ap* vs. Capois: *ape* and South *pe*). Some of the most frequent lexical variants include the word for 'winnowing tray' in SHC: *laye* vs. Southern: *bitchèt*; the word for 'taro' in SHC: *malanga* vs. NHC: tayo; and the verb for 'to hang (something)' in SHC: *kwoke/koke* vs. NHC: *pann*. (Orjala; 1970, Fattier 1998; Valdman 2015). SHC is also used in written texts, some of which include *Dezafi*, the first HC novel written by Frankétienne in 1975, the Haitian translation of the Bible, *Bib-la* (1990) and two periodicals by religious groups: *Boukan* 'Bonfire' founded in 1964 and *Bon Nouvèl* 'Good News' founded in 1967. Although *Bòn Nouvèl* remains to this date the only periodical written in HC the language is increasingly used in written advertisements (street signs, posters, graffiti, etc.) and by many Haitians to communicate on social media, apps, and portable phones. Since HC has an orthography that is generally phonemic[1], it is likely that non-standard variants might be transcribed when they are being used through text messaging and social media posts. Unfortunately, to my knowledge, there is no study that has investigated regional and sociolinguistics variables on HC uses on social media.

1.3 The nasalization of the post-determiner *LA* in non-nasal contexts.

In HC the underlying form of the postposed the determiner is assumed to be /la/ (henceforth *LA*) which surfaces as five allomorphic variants: [la], [a], [lã], [ã], [nã] through progressive assimilation

[1] Not all the orthographic representations fit this generalization. There are some irregularities, particularly with the nasal vowels. For instance, the nasal vowel [ã] is spelled *an,* which can be p [an]. An accent was introduced to cancel the nasalization on the vowel: *àn* [an]. In addition, the phoneme [ʃ] is spelled *ch*, although there is no grapheme *c* in HC.

with the preceding sound (*Cf.* Sylvain 1936; Faine 1937; Hall 1953; Valdman 1978; Dejean 1980; Joseph 1984; Jean-Baptiste 1992; Cadely 1996; DeGraff 2007). It is the norm that after an oral segment, the oral form of the determiner appears (e.g. *travay la* [travajla] 'the work', *lidè a* [lidɛja] 'the leader'), and after a nasal segment, a nasal variant appears (e.g. *zam nan* [zamnã] 'the weapon/firearm', *diven an* [divɛ̃jã] 'the wine'), However, several linguists (e.g. Dejean 1980; Joseph 1984; Valdman 1991) have observed an extension of the nasal variants of the determiner to non-nasal environments (i.e. after an oral segment) in instances such as *tab la/lan* [tabla/lã] 'the table', *diri a/ ã* [dirija/ã] 'the rice'. For Dejean (1980: 143), these are examples of free variation, while Joseph (1984) associates the phenomenon with the speech of the elite and bilingual Haitians. Neither of these two views were supported by extensive empirical data that examined speakers' linguistic performance in relation to their social group membership. Valdman's pilot study was the first to use a pool of sociolinguistically identifiable subjects to study the phenomenon. Valdman's methodology (1991) adopted a variationist approach which categorizes speakers by age, sex, and education. His results indicated a correlation between middle-class bilingual speakers' age and the use of *LÃ* after an oral segment. Specifically, the results revealed that the average rate of nasalization in non-nasal environments was significantly higher among the younger urban speakers than their older peers. Based on these findings, Valdman concluded that there was a sound change in progress being led by the younger bilingual middle-class Haitians.

In the present study I extend this line of research by using more rigorous variationist sociolinguistic methods to answer three main questions. First, has this linguistic change extended to other social groups in Haiti, for example, to monolingual speakers of Haitian Creole, rural inhabitants? Second, are there linguistic factors that condition the change, for example, the type of

non-nasal syllable structures at the end of words? And finally, is there a correlation between bilingual Haitians' speech (i.e. *Kreyòl swa*) and their use of *LÃ* in non-nasal environments?

The data used for the analysis of this study were collected from 32 Haitian informants through pair interviews (P), individual interviews (I), and data elicitation (E) (henceforth PIE), all of which were conducted in HC. Half of these speakers were native residents of a rural town called Béraud, in the southern peninsula of Haiti, and the other half lived in Carrefour, an urbanized metropolitan area near Port-au-Prince. All the occurrences of the determiner *LA* were transcribed and analyzed with regard to six social categories: age, sex, occupation, locality, education and level of bilingualism. To account for the effect of linguistic factors, the data were also coded for syllable structures, vowel height, backness and Frenchification.

The study shows that the nasalization of the determiner *LA* in non-nasal contexts has spread to speakers of different social status (e.g. monolingual, rural). As for the influence of linguistic environments, the study also demonstrates that high vowels constitute a favorable context to the nasalization of the determiner *LA*. However, in open syllables, nasalization does not occur, as a result of vowel lengthening (e.g. *papa a* [pap**a:**]/**papa an* [pap**aã**] 'the father'). Finally, the study indicates a correlation between Frenchified features and nasalization of the determiner for some speakers and not for others.

1.4 Outline of the thesis

This dissertation is structured as follows. Chapter 2, the review of the literature, is divided into two parts. In part A, I discuss the Neogrammarian and the sociolinguistic approaches to variation and change. In part B, I extend the discussion to variation in HC and review the literature on diatopic (regional) and diastratic (sociolinguistic) variation. Then I treat two separate issues: first,

the status of nasal vowels, and second, the morphophonological variation in the HC determiner, which leads to the issue of nasalization of the determiner *LA* in non-nasal environments, the main focus of this study. In Chapter 3, I formulate the research questions and discuss the variationist methods used for the data collection and categorization of speakers (e.g. age, sex, occupation, geographical location, education and level of bilingualism). Chapter 4 presents the analysis and provides the results and interpretations. A summary of the findings is provided in Chapter 5, as well as a list of the dissertation's contributions and a few considerations about the current sociolinguistic varieties of HC and their relations with each other.

Chapter II: Review of Literature

2.0 Introduction

This chapter is divided into two parts. Part A is a discussion of the issue of language variation and language change One of the main questions at the center of this issue is whether language changes are observable, and if so, whether the changes could be predicted by focusing on variation. According to the Neogrammarian hypothesis, the laws of sound change apply without exceptions. While this hypothesis was accepted by some linguists (e.g. Saussure 1916), others (e.g. Labov 1972; Lyons 1981) have criticized it for ignoring the importance of variation as well as the role of social factors in language changes. To test the role of social factors in language change, Labov (1963) pioneered the study of language change in progress in the Martha's Vineyard study. He found that change could be inferred from comparing speakers of different ages. In addition, Milroy (1987)'s studies highlighted the role of speakers' social networks as fundamental approaches to researching changes in progress.

The debate over language variation and change is then extended to creole languages (see section 2.2) in which I focus on two questions. The first one is whether creole genesis is the result of language change or acquisition (DeGraff 1999); in other words, whether adults or children are the creolizers (Mufwene 1999; Bickerton 1999). DeGraff (1999), however, takes a third position, which is that both changes and acquisition play a role in the development of creole languages. The second question is concerned with the post-creole continuum in creole languages (see DeCamp 1971; Bickerton 1973), specifically, whether decreolization applies to every case involving the use of features from the lexifier language. Decreolization is assumed to occur when creole speakers' speech varies based on a continuum from the variety closer to the lexifier to the variety farthest

from it. However, it is noted that even in the creole varieties where decreolization has been extensively studied, this issue remains highly controversial (Patrick 1999; Youssef 2011). In section 2.3, I discuss some of the challenges that HC may present to both the continuum model and decreolization due to Haiti's post-colonial situation resulting in less contact with French and the reduction of French influence on the island.

Part B provides a review of the literature on variation in Haitian Creole. This part includes four publications. The first two are dialect surveys conducted by Orjala (1970) and Fattier (1998) on topolectal variation across various regions of Haiti. The other two publications are diastratic studies: one is a pilot study on oral-nasal variation in the postposed determiner *LA* (Valdman 1991), and the other is a large-scale sociolinguistic study on the Cap-Haitian dialect (Valdman, Villeneuve, and Siegel 2015). These works are discussed in sections 2.4 and 2.5. However, because the issue of sociolinguistic variation in the determiner of HC is the main focus of my study, I review Valdman (1991)'s pilot study in more detail in section 2.9, following the discussions on the status of nasal vowels in section 2.7, as well as the definite determiner in the Caribbean French creoles in section 2.8. Another important point that is discussed in section 2.9 is the link between the nasalization of the determiner after a nasal consonant and a high vowel (e.g. *zan**mi an*** [zã**mijã**] 'the friend') and its extension to non-nasal environments (Valdman 2015; Tézil to appear).

Part A: Variation and language change

2.1 Variation and change

From the Neogrammarians to the sociolinguists, the issue of variation and language change has constituted one of the most important areas in the field of linguistics (Saussure 1916; Sturtevant

1947; Labov 1981; Kiparsky 2008; Labov 2016). As Milroy (1992: 1) notes, sometimes change is rapid, and sometimes it is slow. Also, because some structures are changing, while others remain stable, some linguists (e.g. Bloomfield 1933; Crystal 1996) view language change as unpredictable. This unpredictability of language change is often associated with the fact that change itself cannot be observed; all that one can hope to observe is the consequences of change.

Neogrammarians developed one school of thought on language change that was accepted by many linguists, including Saussure (1916). Based on his view, sound change is basically regular and may be explained through the processes of sound laws. In his *Cours de linguistique générale*, Ferdinand de Saussure (1916: 143) hypothesizes that "phonetic change affects not words, but sounds", and that "phonetic changes are absolutely regular". In addition, the discovery of Verner's law contributed support to the Neogrammarian hypothesis, which states that sound change simultaneously affects all words in which its environment is met, without exception, because one of Verner's Law's main objectives was to explain the exceptions found in Grimm's law (also known as the First Germanic Consonant Shift) (Trask 2007). According to Grimm's Law, one should not expect the second consonant in Old English *fæder* 'father' to be [d], but [Þ] since other early Indo-European languages have [t] (e.g. Sanskrit: *vártarte* > weor*þan* in Old English 'turn, become'). To fix the problem, Verner's Law proposed that a voiceless stop resulting from Grimm's Law underwent voicing if the original Proto-Indo-European accent did not immediately precede it. Karl Verner (1978) was also one of the first linguists to have noticed that in the Germanic languages, native words are governed by a rigid stress pattern which falls on the first element of the root (e.g. *fáther*, not *fathér*). This change in the stress position was found not to be resulting from exceptions but rather caused by borrowing from French and Latin lexis (e.g. Latin: *pater*). It

was later reintroduced in English as [ð] was created by the consonant shift in which it merged with [d] in the West Germanic languages.

Linguists such as Lyons (1981: 205) criticize the Neogrammarians for invoking analogy only to explain apparent exceptions, which Lyons argues to be a much more potent factor than the Neogrammarians held it to be. He refutes the Neogrammarian's distinction between sound change as a physiologically explicable process and analogy as something that results from the sporadic and unpredictable intervention of the human mind. In their defense, however, Kiparsky (2008: 24) points out that the Neogrammarians do recognize analogy as a regularizing force in change and as the manifestation of the mechanism that underlies the normal acquisition and creative use of language.

The Neogrammarian viewpoint on sound change also draws criticism from the American sociolinguist William Labov (1972: 3), for giving little or no importance to variation, and for characterizing it instead as consisting of borrowings, imitations, random and free in nature. He argues that language change can readily be observed by focusing on the linguistic variable, a term defined by Wolfram (2006: 334) as "a structural unit that includes a set of fluctuating variants showing meaningful co-variation with an independent set of variables". As Holyk (2015) notes, this definition breaks with the traditional linguistic description in which variation is analyzed as fluctuation and free variants (see also Crystal 2003; Wolfram 2006). Unlike free variants, sociolinguistic variants co-vary not only internally (i.e. with other linguistic elements) but also with extralinguistic independent variables like social class, age, sex, ethnicity, and one's social network (Labov 2001; Milroy 1980, 2006); as Labov (1972: 3) points out: "…one cannot understand the development of a language apart from the social life of the community in which it occurs." Milroy (1992: 4-6)'s work on the historical sociolinguistics of English also laid a solid

foundation for the social modeling of language change. His model posits two principles: 1) the impossibility of observing language independently of society**;** and 2) the impossibility of describing language structures independently of society. For Milroy (1980) the patterns of language change could be examined by counting the ties between speakers according to their relevant social networks (e.g. sport, kinship, neighborhood, religion, etc.). The basic idea is that people who frequently talk to one another are more likely to have the same speech patterns.

Furthermore, sociolinguistic studies have analyzed language attitudes (e.g., Cooper and Fishman 1974; Carranza 1982; Winsa 1998; Ladegaard 2000), social perception of language (Labov 2001), and even cognitive and cultural factors (Labov 2010) as social variables that influence language change. One question that these studies often seek to answer is why certain groups of speakers adopt certain forms while others do not; for instance, why older generations do not typically adopt the speech of the younger generations. In concordance with Labov's view on variation and change (1969, 1972), many linguists (e.g. Biber 1988; Tagliamanote 2008) have emphasized the role of variation as fundamentally necessary to observe the progression of language change.

2.1.2 The effect of internal and external factors on language change

Contemporary views on language change recognize the influences of language internal (i.e. intra systemic) and external factors (i.e. social contact), as well as the influence of extra-linguistic factors (i.e. sociopolitical and economic) (see Farrar and Jones 2011). In some cases, language change may be linked to one of these factors, and in other cases to all of them (Thomason and Kaufman 1988). But it is also noted that the differences of opinion between linguists over the effects of internal and external factors on language change results from their distinctive approaches

to language, that is, whether language change is associated with an independent system in which language change is a product of the internal structure or whether the speaker is viewed as the main agent of the process of linguistic change (Milroy 1980).

An example of internal change that is often mentioned is the Greenberg pathway on the development of nasal vowels. According to Greenberg (1978: 71), phonemic nasal vowels originally derive from allophonic nasalization.

(1) VN → ṼN → Ṽ

As observed in example (1), first, oral vowels nasalize through regressive assimilation with the nasal consonant. A second sound change involves the loss of the nasal consonant once the vowel has been nasalized. As Good (2008: 12) notes, the presence of oral vowels in a language is a prerequisite for the development of nasal vowels. He argues that one way to explain the synchronically observed pattern that all languages with nasal vowels also have oral vowels is to invoke a historical generalization that "nasal vowels come from oral vowels, and not vice versa" (Greenberg 1978b: 51).

While some changes are truly internal to a single grammar (e.g., Greenberg's nasalization), others involve contact with another co-existing variety (e.g. Labov (1966). Labov's investigation of the New York City post-vocalic (r) illustrates how language variation and change can be sensitive not only to internal rules but also to social factors. In the study, Labov observes speech at three New York City department stores and their employees' level of *r* retention in the phrase: "fourth floor". He found that the speech of the employees working at the low-ranking Saks were more likely to drop the [r], while the employees of the higher-ranking Macy's were more likely to retain it. Based on the empirical evidence provided from that study, he concluded that the post-vocalic [r] correlates with the social stratification of New Yorkers.

2.1.3 Change in progress

The question of whether changes can be observed remains one of the main focuses of sociolinguists, particularly William Labov who pioneered the study of language change in progress in his studies of the Martha's Vineyard study (1963; 1972b) and the New York city postvocalic (r) (Labov 1966). His approach to the observation of sound change in progress utilizes the differential distribution of features across age levels to infer the presence (or absence) of sound change (Labov 1972: 6). In his studies, he assumes that the speech of a 60-year-old speaker is representative of the language of half a century ago, when speakers of this group were acquiring the linguistic variant. In other words, the link between speakers' age and the use of the variant serves as a reference point for characterizing the development of the change.

Labov (1963: 290) focuses his attention on the way the native Vineyarders were centralizing the vowels [aʊ] to [əɪ] and [aɪ] to [əɪ] in words like: *out*, *house*, and *right*, *wife, nice* and *night*. The sixty-nine natives of Martha's Vineyard included in the study were grouped based on their age, ethnicity, occupation, and place of residence. In order to confirm the change in progress, he compared his study to the *Linguistic Atlas of New England*, a survey conducted in the 1930s. Labov found a significant link between the feelings of the informants and centralization. For instance, those who identified with the island were found to centralize more than those who did not identify to it. However, those with a strong commitment to the island exaggerated centralization, pushing the centralized variant to an [aw]. With respect to age level, Labov (1972b: 22) found more centralization among younger speakers (31-45 age group) but found less centralization among the youngest speakers age 14-30. He found that the change was most advanced among those who were in their thirties and early forties. Labov also noticed that, in addition to age, there was a strong correlation between the change and the islanders 'occupation

(i.e. fishermen) which led him to investigate the effect of attitudes toward the island on speech patterns.

As Wardhaugh (2010: 200) notices, many linguists have been paying attention to other cases they consider to be changes in progress. Among them one can identify Chambers and Trudgill (1988)'s study that describes the spread of uvular [r] in Western and Northern Europe. The studies on change in progress provide new perspectives on how it is embedded and spreads within the language system and the speech community.

2.2 Variation and change in creole languages

2.2.1 Creoles and language change

For a long time, creole languages were left out in the debate over language change. Not only was this caused by a lack of familiarity with these young languages but also because the focus was on the description of these languages, with few diachronic studies and relative rarity of older documents. But DeGraff (2003: 533) also remarks that creole languages have often been described as "exceptional", a term he defines as "a set of beliefs, widespread among both linguists and non-linguists, that Creole languages form an exceptional class on phylogenetic and/or typological grounds". Those who endorse creole exceptionalism (CE) (e.g. Bakker 2014; Bakker, Aymeric, Mikael, & Ingo 2011; McWhorter 2001; 2005; 2013)[2] view creole languages as typologically distinct from non-creole languages. For example, in his famous 2001 article: "The World's simplest grammars are creole grammars", McWhorter describes creole languages as being

[2] Even though Thomason & Kaufman (1988) do not mention CE per se, their work clearly endorses a kind of CE with respect to the origins of creoles, since they are a kind of language which did not fit in a family tree. This is pretty much the standard wisdom in language contact today.

morphologically simpler, less redundant and more regular or transparent. Bickerton's Bioprogram Theory (1984a: 178) goes in the same direction suggesting that the bulk of Saramacan grammar could be captured in less than ten syntactic rules. However, other linguists (e.g. Valdman 1971; Chaudenson 1992; Mufwene 2001; DeGraff 2003) view creoles as non-exceptional, as DeGraff (2003: 402) points it out: "In recent work, the joint investigation of language contact, language change, and language acquisition suggests that there is not, and could not be, any deep theoretical divide between the outcome of language change vs. that of creolization."

2.2.2 Post-creole continuum

It is commonly agreed that every language undergoes variation. Creole languages are not excluded from this process. However, it is commonly suggested (in almost every sociolinguistic textbook) that because creole speakers usually remain in contact with the creole language's specific lexical donor (i.e. the superstrate or lexifier) that they may replace the creole features with the superstrate ones (Holm 2000). Such processes can occur over a continuum of varieties labeled as *acrolect* for the variety closest to the standard, and *basilect,* for the variety farthest from it, with *mesolect* as the intermediary.

Fig. 2.1. The creole continuum model

The continuum model was first applied by DeCamp (1971) to the gradation of varieties between creoles and Standard English in the Caribbean. The evidence put forth in support of the decreolization continuum is mainly found in the English-based creole varieties in Jamaica, Trinidad and Tobago, and Guyana. Bickerton (1975:24) cites Allsopp (1959) to show how the following Guyanese varieties of the Standard English sentence *I told him* can exemplify various parts of the continuum based on social stratification:

(2) Variation in the post-creole continuum

a. ai touɔld hɪm
b. ai to:ld hɪm
c. ai to:l ɪm
d. ai tɛl ɪm
e. a tɛl ɪm
f. ai tɛl i
g. a tɛl i
h. mi tɛl i
i. mi tɛl am

The first three varieties (2a-c) illustrate the acrolectal forms found in the speech of the educated, upper middle-class speakers, while the next four (2d-g) exemplify the mesolectal usage found among lower-middle class and urban working-class speakers. Finally, examples (2h) and (2i) represent the basilectal forms used by rural speakers as well as those with little to no education (Cave 1973 Bell 1976). However, the association of a form to a particular variety (i.e. mesolect, basilect, and acrolect) varies from one creole language to another. In Jamaican Creole, the overt copula forms *a* and *de* for nominatives and locative predicates are claimed to be basilectal and almost absent in Trinidadian Creole (Bailey 1966; Patrick 2004; Deuber 2014), but these forms could still be heard in the speech of "older country dwellers" (Solomon 1993: 73; Deuber 2014: 23).

While the continuum model can be adopted in certain Caribbean French-based creoles where there is still significant contact with French (e.g. Martinique, Guadeloupe), it faces significant challenges when it comes to HC. Various linguists (e.g. Holm 2000; Valdman 2015) note that Haiti's linguistic and cultural isolation from France has played an important role in setting HC and French apart from each other. A continuum requires that there be some kind of continuity among the various sub-groups (Wardhaugh 2010: 78). That is, the two extreme varieties are varieties of the same language. Warhaugh notes that there can be no continuum if the society is highly stratified, so that there is little or no contact between the groups that speak the creole and the lexifier language. Because this social continuity is lacking in the case of Haiti, it is suggested that the social situations in Jamaica and Haiti, for example, are different.

2.2.3 Diglossia

Haiti's sociolinguistic situation is traditionally defined as diglossic, where French is used in formal and public domains, and HC is used in private and informal domains (Ferguson's 1959; Fishman 1979). In the diglossic relationship in Haiti, because French is more highly valued, it is labeled as the high-status language, and HC, the low status language. However, Dejean (1983; 1993) has rejected the diglossic analysis in the case of Haiti. He argues that all Haitians (including bilingual Haitians) speak creole, and that diglossia does not reflect the situation in Haiti because only a small minority of the Haitian population is bilingual. Likewise, Valdman (1988) refutes the idea that diglossia applies to most of the Haitian population. He sees Haiti as composed of two linguistic communities: the bilingual elite and the monolingual speakers, as he points out, "...the Haitian urban élite bilingual speakers are diglossic. For them, French serves as the formal register and HC as the informal one. On the other hand, for the monolingual community, HC necessarily serves all

communicative needs." (Valdman 2015: 363-4). But as HC gains more prestige and extends to domains that used to be traditionally occupied by French, it shows sociolinguistically-based variation. As a result, bilingual Haitians and those with contact with French begin to introduce Frenchified features into HC. This raises the next question regarding whether the Frenchified HC variety spoken by educated bilingual Haitians has been decreolized, as discussed in the following section.

2.2.4 Decreolization

Bickerton (1980: 180) describes decreolization as a process in which "speakers progressively change the basilectal grammar so that its output gradually comes to resemble the output of an acrolectal grammar." As Holm (2000: 50) mentions, the diffusion of linguistic features causing decreolization can result not only in creoles acquiring non-creole features but also in non-creole varieties acquiring creole features. Holm notes, however, that the fact that the diffusion can work both ways is problematic, and that broader historical contexts are needed to determine its direction. For instance, the speech of Jamaica has been identified as a creole that has acquired non-creole features, whereas the folk speech of the Cayman Islands appears to be a non-creole that has acquired creole features (Washabaugh 1983: 174-78). According to Trudgill (2002: 70), decreolization goes to completion (as in the case of African American Vernacular English or AAVE) when the creole is being perceived as a variety of the source language. For Trudgill, Jamaican Creole, unlike AAVE, is a case of intermediate stages of decreolization. It is worth noting, however, that the hypothesis about the decreolization of AAVE is controversial, as it is not accepted by all. For instance, Poplack (2006) refutes the decreolization hypothesis argument and argues that the features of AAVE may have been influenced by the English spoken by the British

colonizers of the United States. Schwegler (2000) also notices that despite social contact with the dominant Spanish superstrate, Palenquero is one of those rare creole languages which did not undergo decreolization in South America.

There is significant disagreement and confusion over the term decreolization. For instance, Patrick (1999: 19), whose viewpoint leans toward the continuum, criticizes Bickerton's definition of decreolization as "… an insecure notion: insufficiently distinguished from ordinary change processes, possibly conceptually incoherent, and certainly not adequately supported by diachronic investigations to date". As Deuber (2014: 10-11) noted, although some linguists prefer the term decreolization, DeCamp initially formulated it as a 'post-creole' continuum in order to refer to the historical development of a creole in which it gradually merges with the lexifier. Critics of Bickerton's decreolization (e.g. Mufwene 1994: 2001) continue to challenge his definition with the same question; that is, in what way changes in creoles differ from ordinary language change? Patrick (1999: 19) disregards decreolization as relevant for his investigation and recommends that it be excluded from the continuum model. Kaye & Tosco (2001: 94) also argue that the concepts of depidginization and decreolization remain insufficiently studied or understood. Finally, DeGraff (2005: 553) expressed his reservation concerning the concept of decreolization in these terms: "It has not been rigorously defined what structural process is inverted or what structural properties are removed by this de-creolization process."

In his review of the notion of decreolization, Siegel (2010) notes that the term is often used vaguely in studies of creole languages and language contact. He points out that there are many definitions, some more precise than others. Also, he notes that it is not always clear what the exact target of decreolization is; that is, whether it is the lexical borrowings or the grammar.

The variety of HC that is often associated with educated bilingual Haitians is known as *Kreyòl swa* 'silky/smooth HC' versus *Kreyòl rèk* 'rough HC', the variety spoken by the monolingual Haitians (Fattier 1984, Schieffelin & Doucet 1994; Valdman 2015). In addition to lexical borrowings (e.g. *ministère de l'éducation an* 'the ministry of education'), the features that have been identified as *Kreyòl swa* include the use of front rounded vowels (e.g. ***kè<u>u</u>*** [k**œ**] ~ ***kè*** [k**ɛ**] 'heart'), the presence of the post-vocalic [r] (e.g. *doul**è<u>u</u>r** la* [dulœ**r**la**]** ~ *doul**è** a* [dulɛja] 'the pain'**)**, as well as the complementizer *ke* (e.g. *Si ou wè ke sa pa vre* 'If you see that it is not true'; Valdman 2015: 351-353). On the basis of these Frenchified features presented here, there are a few questions that need to be addressed with respect to decreolization in HC: (1) Are lexical borrowings like the use of a French NP: *ministère de l'éducation* followed by the HC postposed determiner *an* [ã] an example of decreolization? If so, how different is it from speech resulting from language contact (e.g. codeswitching, borrowing, etc.)? (2) Which language (i.e. HC or French) is the form with the postvocalic [r] in the phrases *ministère **l**a* [ministɛ**r**la] 'the ministry' vs. *ministè a* [ministɛja? (3) Can linguistic elements for which *Kreyòl swa* and HC forms are available be analyzed as linguistic variables? The concept of decreolization may remain the subject of debates unless more studies focusing on variation extend the scope of linguistic observation beyond formal experiments to careful variationist sociolinguistic analysis of these varieties in the everyday life of their speakers.

Part B: Variation and language change in HC

2.3 Regional and sociolinguistic variation

It is assumed that creole language situations such as those that exist in West Indian communities like Jamaica, Guyana, and Trinidad are characterized by variation resulting from increasing modification of creole structures in the direction of the lexically related model language (Winford

1988: 277; also see Trudgill 2002). As I review the issue on variation in HC, I hope to show that there are cases of linguistic development that occur independently of the lexifier language. Such cases include regional and sociolinguistic variation. It is undeniable that there are differences between the speech of bilingual educated Haitians and their monolingual counterparts. Perhaps, this may be used as support for decreolization in HC. But as discussed earlier, there are no clear criteria for setting apart a basilect variety of HC from an acrolect variety. Even the case of the front rounded vowels, often mentioned in the literature as a feature of the educated bilingual Haitians' speech, has been the subject of strong disagreement between Valdman (1978; 2015) and Dejean (1980) over the presence of these vowels in the North. In Dejean's criticism and denial of Hyppolite (1949) and Valdman (1978)'s observation of the front rounded vowels in the Capois dialect, he points out that he has traveled the northern region "…*magnétophone en bandoulière, sans détecter la moindre trace de ces dialects ruraux conservateurs, privés de lieu géographiqyue, parce que manifestement dépourvus d'existence*." (p.121). '… with the shoulder-strapped tape recorder, without detecting any trace of these old dialectal rural features, which have no geographical location, hence, do not really exist."

2.3.1 Regional variation in HC

Diatopic variation in HC constitutes one of the well-documented areas of variation in the language. The studies of diatopic variation of Haiti date back to the 40's, with Hyppolite's *Les origines des variants du créole haïtien* (1949), followed by Goodman's *A comparative study of creole French dialects* (1964) and the of two topolectal surveys by Orjala (1970) and Dominique Fattier (1998). These studies commonly identify three main dialect areas in Haiti: The North, the West (with Port-au-Prince as its center) and the South. Unlike the first two studies, Orjala and Fattier's studies also

provide evidence for variation at the regions in the extreme north and south of Haiti. This explains why Valdman (2015: 315) claims that these two studies constitute “solid empirical bases" to the area of topolectal variation.

2.3.2 Orjala’s survey (1970)

In addition to the three dialect areas of the country, Orjala (1970: 28) also identifies at least six transitional zones: The Northwest, the Saint Michel zone, the Hinche zone, the Gonaïves zone, the La Gonâve zone, and the Jacmel zone. The first three are part of the Northern dialect, while the last three are part of the Central dialect area. Finally, another feature that characterizes Orjala’s survey is the distinction between rural and urban creole. This distinction is often an effective way to account for variation within the same dialect area. For example, Orjala (1970: 157-158) notes that when a contrast exists between a rural variant and an urban variant, the one which is more like French is usually the urban form. These include the urban variants *ke* [ke] ‘tail’, *kòman* [kɔman] ‘how’, *saj* [saʒ] ‘wise’ which alternate with the rural variants *che* [tʃe], *kouman* [kuman] and *say* [saj] respectively.

2.3.3 Fattier’s dialect survey (1998)

Dominique Fattier’s *Atlas linguistique d’Haïti* (1998) constitutes an authoritative work conducted on dialect variation in HC. Although the data were initially collected in the 80’s, the survey has remained to this day a fundamental resource because it is large scale enough to show certain linguistic features in detail. Table 2.1 presents instances of phonetic variation, morphological and morphosyntactic variation, as well as lexical variation. For instance, oral-nasal variation can be found in the pair [kanɛl] ~ [kãnɛl] ‘cinnamon’. There is alternation in the third person singular

variants [i] and [li], the former being a feature particular to the Northern dialect. Regional variation may be found between the pair [etwal] ~ [zetwal] 'star'. The progressive verb marker [pe] alternates with [ap], particularly in the southern region where it constitutes one of the peculiarities associated with the area.

With respect to lexical variants, the word meaning 'taro' can be heard as *malanga* [malãga] in the southern and central areas and as *tayo* [tajo] in the northern regions. Even when a word is generalized across the country, there may be semantic differences. For instance, Valdman (215: 324) points out that the general variant meaning 'to hang', *kwoke*, is taboo in Northern HC because there it is the vulgar term for 'have sex'. Moreover, it is worth noting that some of these variants (e.g. [etwal] ~ [zetwa] 'star', [ouvri] ~ [louvri] 'to open') may be found anywhere in the country, and sometimes in the same speaker. Also, the use of some of these variants may be conditioned by social factors. For instance, while it could be hypothesized that educated speakers would be more likely to say [kana] than [kãna] 'duck', it might be difficult to extend this hypothesis to the pairs [ouvri] ~ [louvri] 'to open' and [avã] ~ [ãvã] 'before'. I suspect that it is not only because [kana] is closer to French but also because regressive nasal assimilation is often stereotyped as "rural" or "monolingual" speech.[3]

[3] Other similar cases include [remɛd] ~ [rɛ̃mɛd] 'medication', [semɛn] ~ [sɛ̃mɛn] 'week', [fanal] ~ [fãnal] 'lantern'

Table 2.1. Regional Variation in Haitian Creole (adapted from Fattier 1998)

Types of variation	Variants	Examples	Gloss
Phonetic	[wa/wɛ/rɛ]	[pwav]/[pwɛv]/[prɛv]	Pepper
	[j/ʒ]	[laj]/[laʒ]	Garlic
	[a/ã]	[kanɛl]/[kãnɛl]	cinnamon
	[a/o/ã]	[pako]/[poko]/[pãko]	not yet
	[zj/ʒ]	[zje]/[ʒe]	Eye
	[li/i]	[li vini]/ [i vini] 'he/she has come (over)'	3sg pronoun
Morphophonological	[la/Ø]	[laplɛn/plɛn]	plains, prairie
	[Ø/z]	[etwal/zetwal]	Star
Morphosyntactic	[ap]/[ape]/[pe]	[m ap vini]/ [m ape vini] 'I'm coming'	Progressive marker
	[la]/[la+jo]	[tab jo]/ [tab la jo] 'the tables'	Plural déterminer
Lexical	[bukãte]/[twoke]	[Li bukãte/twoke jo] 'he switched them'	to switch
	[vɛ/goblɛ/gode/tɛ̃bal]	[nu ate vɛ/goblɛ/gode/tɛ̃bal] 'We bought cups'	cup, glass
	[malãga]/[tajo]	[malanga/tajo a pa bon] 'The taros aren't good.'	Taro
	[koke]/[kwoke]/[pãn]	[Yo pral koke/kwoke/pann rad yo] 'they are going to hang the clothes.'	to hang (something)

As Valdman (2015) points out, although Orjala's (1970) and Fattier's (1988) dialect surveys are innovative and important topolectal (or diatopic) studies, they are somewhat dated and do not provide a description of dialect variation in present-day Haiti. In fact, Orjala's data were collected almost a generation ago, while those of Fattier, published in 1998, were collected in the early 1980s.

2.3.4 Sociolinguistic studies in HC

To this day, there is a dearth of diastratic (sociolinguistic) studies that have been conducted to understand the link between some of these variables and the sociolinguistic factors that influence them. There are two truly sociolinguistic studies conducted in HC. The first one is a pilot study conducted by Valdman in the 80's on the nasalization of the determiner in non-nasal environments and published in 1991. This study is taken up in section 2.9, following the discussion and review of the determiner in the Caribbean French Creoles, particularly that of HC. The second study is an article published from a large-scale research project focusing on the Northern dialect (Valdman, Villeneuve, and Siegel 2015). It is the most extensive and large-scale existing sociolinguistic study, involving interviews with 130 consultants in the Cap-Haitian region (North), the nation's second largest city. This study is reviewed first in the next section.

2.3.5 The Northern dialect or Capois

Valdman's study on the Northern dialect or Capois (Valdman 2008 ; Valdman *et al*. 2015) had two main objectives: 1) determining the main particularities of the Northern dialect (e.g. the possessive construction, the third person singular pronoun, postvocalic (r), vowel raising before *y*, the preposition meaning 'with' *ake* vs. *ak*); 2) determining the extent to which these variables have been retained by Capois speakers, and whether the adoption of their Standard HC (SHC) equivalents differ among different social categories : location (urban vs. rural), age (senior vs. junior; sex (female vs. male). One of the sociolinguistic variables that has been analyzed in great detail in the study is the third person singular (Valdman, Villeneuve, and Siegel 2015). This study represents a breakthrough in the field of HC sociolinguistics because the methodology adopted a

variationist approach where all the social categories were represented, and the interviews were conducted individually and in pairs with local versus external interviewers.

2.3.6 Sociolinguistic variation in HC: the case of the third person singular pronoun in Capois

This study (Valdman *et al*. 2015) focuses on the third person singular (3SG), one of the most salient features of this regional variety of HC. As a dependent variable, the pronoun can be realized as the local Capois variants *i/y*, or as the SHC variants *li/l* (e.g. Capois: ***I*** *manje* ***y*** versus SHC*:* ***Li*** *manje* ***l*** 'He/she ate it'). The variants of (3SG) were coded for syntactic and phonological features. The syntactic features included: (1) in the existential construction '*I gen* 'there is', (2) as a subject, or (3) as an object. Regarding phonological environments, the immediate preceding and following phonological contexts were coded, where vowels, consonants and glides were distinguished.

The results (Table 2.2.) show that locality is selected as the only significant factor influencing the use of Capois variants. The rural speakers favor the Capois variants (.766) while the urban speakers disfavor it (.306). As for the effect of linguistic factors on the Capois variants, the results show that the following glides and consonants favor the Capois variants for both urban and rural speakers, with a stronger effect for urban speakers (.699) for urban speakers vs. .563 for rural speakers), while a following vowel strongly disfavors it. However, the two speaker groups significantly differed with respect to the effect of the prevocalic environment. The effect of the preceding environment is selected as significant only for urban speakers: a preceding vowel or glide favors the Capois variant while a preceding consonant disfavor it.

Table 2.2. Factors Affecting Capois (3SG) Variants in Subject Position
(Valdman, Villeneuve, and Siegel 2015: 36)

Factors	Weight	% [27]	N
OVERALL		**89.8**	**1,953**
FOLLOWING SEGMENT			
Glide	.686	98.0	51
Consonant	.667	97.6	1,557
Vowel	.038	53.6	345
RANGE	*648*		
PRECEDING SEGMENT			
Glide	.650	94.9	156
Vowel	.512	90.3	1,444
Consonant	.325	87.2	227
RANGE	*325*		
LOCALITY			
Rural	.766	95.9	798
Urban	.306	85.6	1,155
RANGE	*460*		
AGE			
Seniors	[.453]	90.2	919
Juniors	[.542]	89.5	1,034
SEX			
Men	[.550]	91.4	753
Women	[.469]	88.8	1,200

Input: .970; Significance = .005; Convergence at Iteration 10

In object position (Table 2.3), the Capois variant is still highly favored (input .965). However, as Valdman *et al* (2015: 39) note, in this context the following segment no longer plays a significant role in the selection of the (3SG) variant. Because the pronoun is in object position, the preceding segment is the only significant factor. For instance, the Capois variant is favored after a vowel, while the SHC variant is favored after a consonant or a glide.

Table 2.3. Factors Affecting Capois (3SG) Variants in Object Position
(Valdman, Villeneuve, and Siegel 2015: 36)

Factors	Weight	%	N
OVERALL		89.8	705
PRECEDING SEGMENT			
Vowel	.620	97.6	659
Consonant	.001	3.2	31
Glide		0	15
RANGE	*619*		
FOLLOWING SEGMENT			
Vowel	[.585]	89.8	177
Consonant	[.469]	92.0	425
Glide	[.446]	91.1	34
NUMBER OF OBJECTS			
One object	[.515]	92.2	653
Two objects	[.315]	80.0	50
LOCALITY			
Rural	[.513]	91.9	298
Urban	[.491]	90.9	407
AGE			
Seniors	[.551]	91.7	363
Juniors	[.445]	90.9	342
SEX			
Men	[.379]	92.8	276
Women	[.579]	90.4	429

Input: .961; Significance = .000; Convergence at Iteration 7

As Valdman et al concluded, despite these linguistic differences, both rural and urban Capois share similar grammar. While urban speakers show significant differences to their rural peers in post-consonantal contexts where they are more likely to use the full standard variant *li*, the Capois variants are favored in postvocalic contexts by both groups of speakers.

2.4 Nasality in Haitian Creole (HC)

2.4.1 Oral-nasal variation

Nasal variation is an attested phenomenon in both lexical and derived contexts in HC. An example of lexical nasal variation includes the alternation between [a] and [ã] in the word [kana] ~ [kãna] 'duck'. Moreover, oral-nasal variation can occur in derived forms (e.g. [padɔ̃] 'forgiveness' [padone] ~ [padɔ̃nɛ̃] 'to forgive'), as well as in the postposed determiner *LA*: [dam nã] ~ [dam lã] 'the lady', [bãk la] ~ [bãk lã] 'the bank', and [peji a] ~ [peji ã] 'the country'. However, only one study (Valdman 1991) has been able to establish a link between oral-nasal variation of *LA* in non-nasal environments (e.g. [tab la] ~ [tab lã] 'the table') and the social categories (e.g. age) of the speakers who produced them. I hope to discuss these cases more extensively in the next sections; but beforehand, it is important to review thoroughly the issues of oral and nasal vowel systems and the phonological representation of nasality in HC.

2.4.2 Review of the vowel system of Haitian Creole

The vowel system of HC has been subject to an ongoing debate and varying interpretations. Basically, the discussion centers mostly on the interpretation of nasality and the high nasal vowels. Despite decades of studies conducted on the vowel system, linguists have been unable to come to a consensus over the vowel inventory mainly because of the lack of acoustic evidence supporting the phonological claims made about the status of nasal high vowels.

2.4.3 The oral vowel system of HC

Most specialists of HC (e.g. Hall 1953; d'Ans 1968; Dejean 1980; Valdman 1978, 2015) agree that the oral vowel system of HC contains seven vowels, as seen in (3).

(3) Oral Vowel System of HC (Hall 1953: 18)

		Front Unrounded	Back rounded
Higher		i	u
Mid	Tense	e	o
	Lax	ɛ	ɔ
Low			a

The vocalic chart includes three back rounded vowels /u/, /o/, / ɔ/, a central vowel /a/, and three front unrounded vowels /i/, /e/, /ɛ/. However, one can also note that in the vocalic system described by d'Ans (1968: 64) there are three front rounded vowels (i.e. /y/, /ø/, /œ/) in parentheses next to their front unrounded counterparts. d'Ans suggests that while they could be included in the system, "…*les voyelles antérieures arrondies ne sont pas indispensables à l'économie générale de la langue*" 'the front rounded vowels are not indispensable to the economy of the language'. Therefore, these vowels are represented in parentheses. d'Ans also posits a complementary distribution between /e/ and /ɛ/, /ɑ/ and /a/, and /o/ and /ɔ/, and reduces the oral vowel system to five vowel phonemes.

(4) Oral vowel system with rounded vowels

(y) i u

(ø) e o

(œ) ɛ ɔ

ɑ

a

(5) Reduction of the oral vowel system

I U

E O

A

d'Ans (1968: 64)

D'Ans use of the term "phonemes" (1968: 61) in the case of /ɑ/ and /a/ is confusing since his examples suggest that these two vowels are in complementary distribution, He shows that /ɑ/ appears in open syllables (e.g. [pɑ] 'step') and /a/ in closed syllables (e.g. [pat] 'paw'). Even if these two vowels were to be found in the speech of some Haitians (particularly bilingual speakers), there is no reason why they cannot simply be characterized as allophones of the same phoneme /a/.

Regarding the representation of the front rounded vowels in (4), d'Ans' description requires further comment. He mentions the presence of front rounded vowels in [nø] 'knot' and [pœ] 'fear' (p.63). However, the position of these vowels in his vocalic system could suggest that they may vary with their front unrounded counterparts; an assumption that is partly true and partly inaccurate. It is true because they can alternate in some words: [n**ø**] ~ [n**e**] 'knot', [sɛ] ~ [s**œ**] 'sister'**,** but not in others: [lap**ɛ**] 'peace' vs. [lap**œ**] 'fear'. As the preceding examples show, bilingual Haitian speech, the front rounded vowels vary with the front unrounded ones in some contexts, and contrast in others. This implies that it is not only a question of economy, but the presence of a different system (or two systems) in the speech of bilingual Haitians.

Valdman (2015: 72-73) notes that because there is no phonological representation for the front rounded vowels by the official orthography, he often has to devise an orthographic representation in order to account for the rounding features produced by some educated Haitian speakers: /y/ *u*, /ø/ *eu*, /œ/ *èu*. The French front rounded vowels [œ], [ø] and [y] alternate with corresponding unrounded vowels in the HC of bilingual speakers (e.g., [kœ] ~ [kɛ] 'heart'; [dø] ~ [de] 'two' and [dɥri]~ [diri] 'rice'), but they are absent in the speech of monolingual speakers (Dejean 1980, Schieffelin & Doucet 1994). However, Valdman (2015: 68-73) raises questions concerning their phonological status in HC: it is debatable whether these front rounded vowels

are an integral part of the sound system of HC or whether they are marginal elements borrowed from French. He notes the occurrence of front rounded vowels in Fattier's topolectal study (1988) *Contribution à la genèse d'un créole: l'Atlas Linguistique d'Haïti, cartes et commentaires* (e.g., map 197, *òteur* 'author'; map 2010: *kwochu* 'crooked'), as well as in Capois (e.g., *duri* 'rice', *sèur* 'sister'). He indicates that these front rounded vowels occur in the speech of monolingual Capois speakers (Valdman 1978; Valdman, Villeneuve & Siegel 2015), an observation that Dejean (1980: 12) strenuously refutes. For Dejean (1980: 126), the use of these front rounded vowels results from the influence of schooling. He points out that the same Haitian francophone who says [fyty] 'future' and [vjø] 'old' can as well (and without any effort) produce [fiti] and [vye]. Despite the divergence of opinions on the status of front rounded vowels, both Dejean (1980) and Valdman (2015) seem to agree on the fact that these features alternate with the monolingual corresponding vowels, and often in the same bilingual speaker's speech.

2.4.4 The nasal vowel system

Linguistic descriptions of the nasal vowel system of HC (Hall 1953, Tinelli 1974, Valdman 1978, and Cadely 1994) often diverge concerning the status of nasal high vowels in HC. Some linguists (Hall 1953, Tinelli 1974, and Cadely 1994) claim phonemic status in the case of the nasal high vowels (e.g. [ĩ] and [ũ], as in *oungan* [ũgã] 'vodou priest' and *pinga* '[pĩga] 'look out, don't…'), while others (Valdman 1978; Dejean 1980) argue for the allophonic status of the high vowels citing the absence of contrast between oral and nasal high vowels in the pairs [bũda] ~ [buda] 'butt' and [pĩga] ~ [piga] 'look out, don't…'. This split is often noticed in the difference in representation of the nasal vowel system, as in (6) and (7).

(6) Nasal vowels in HC (Cadely 2002: 436)

ĩ ũ
ẽ õ
ã

(7) Nasal vowels in HC (Dejean 1980: 121)

ẽ õ
ã

According to Dejean (1980), HC words containing high vowels are usually vodou-related, and he thinks that it is possible they might have been directly borrowed from African languages. For him, the issue is whether these nasalized high vowels have phonemic status or whether they are allophonic in the pairs: [ũgã] ~ [ugã] 'vodou priest'. Yet, Dejean (1980: 118) only cites one vodou related example [ũfò] 'vodou temple', as compared to the words [kũ] 'as, like', [pĩnga] 'look out, don't…', which are not.

2.5 Issues in the allophonic diffusion of nasality in HC

In HC, nasalization of vowels occurs in lexical words (e.g. HC: [promɛ̃nɛ̃] from French [promәne] 'to walk around') and function words (e.g. as in the definite article: /dra + la/ → [dra a] 'the sheet' and /bã + la/ → [bã ã] 'the bench') (Cadely 1994; Valdman and Iskrova 2003; Pindziak 2012). In both French and HC there is evidence for the phonemic status of nasal vowels (e.g. /pã/ peacock vs. /pa/ 'step'). Also, in both languages (i.e. HC and French), an oral vowel can appear before a nasal consonant: (e.g. [pan] 'break down'). But, unlike standard French, a nasal vowel can also appear before a nasal consonant: /pãn/ 'to hang', which raises two questions: (1) is there a three way phonemic contrast between [pã], [pan] and [pãn] in HC; and (2) what is the status of nasality in HC? Before addressing these questions in light of proposed analyses in the literature, it is important to analyze the environments where nasalization can and cannot spread.

When observing the data of HC, it may seem that there are more than two contrastive structures in the nasalization process of the language. There are contexts in which nasalization spreads freely (e.g. [fanal] ~ [fãnal] 'lantern' and [kana] ~ [kãna] 'duck'), as well as contexts in which nasalization is expected to occur but fails to occur (e.g. [zam] and not [zãm] 'weapon'). The final peculiarity of nasalization in HC is the contrastive distribution of oral and nasal vowels in nasal environments (e.g. [vãn] 'sell' vs. [van] 'hydrant'). Although there are cases where there is indeed a three three-way contrast (e.g. [pan] 'broken', [pã] 'peacock', and [pãn] 'to hang'), the problem is that all three forms cannot be assembled in one triplet, particularly [vãn] 'to sell' and [pãn] 'to hang' because their underlying forms can be represented with a final voiced obstruent /d/ (e.g. /vãd+ɛ/ 'seller' → [vãn] 'to sell') instead of a nasal consonant. This issue is discussed in more details in section 2.7.3.

Nasality is traditionally claimed to spread two ways (Hall 1953; d'Ans 1968; Annestin 1987):

(8) Regressive nasal rule

$$V \rightarrow [+nasal] \,/\, \underline{\quad} \begin{matrix}[+cons] \\ [+nasal]\end{matrix}$$

(9) Progressive nasal rule

$$V \rightarrow [+nasal] \,/\, \begin{matrix}[+cons] \\ [+nasal]\end{matrix} \underline{\quad}$$

According to this rule, nasality spreads from a nasal consonant to the preceding oral vowel, or regressively (e.g. /lamu/ becomes *lanmou* [lãmu] 'love') and occurs from nasal consonant to the following oral vowel, or progressively (e.g. gagãn 'throat' /gagãn +e/ → [gagãnɛ̃] 'to grab by the throat'). However, Cadely (1994) argues that nasalization does not affect high vowels regressively, and that the representation of the high vowels [ĩ] (e.g. *legĩm* 'vegetable' and *pitĩmĩ* 'millet')

suggested in Tinelli (1970) is questionable (as indicated by the question mark:(?)), given that the vowel which precedes the nasal consonant in the following words is not nasalized.

(10)	[minis]	[timun]	[ʒumã]
	?[mĩnis]	?[tĩmũ]	?[ʒũmã]
	'minister'	'child'	'insult'

(Cadely 1994: 157)

While there seems to be a consensus among creolists pertaining to the regressive nasalization rule, there is disagreement as to the context in which this rule applies. Under that rule, the vowel is assumed to be underlyingly oral and it nasalizes when preceded by a nasal consonant: /VN/ > [ṼN]. But they also note that an oral vowel can be realized in the environment of a nasal consonant, regardless of the position of the phoneme within the word. For example, a major challenge posed by the regressive nasalization rule is that the data on Haitian Creole also contain examples of phonemic contrast between nasalized vowels (ṼN) and non-nasalized vowels (VN) in the same context, as seen below in (11).

(11)	[ʃãm]	[ʃam]	[pãn]	[pan]
	*[ʃam]	*[ʃãm]	*[pan]	*[pãn]
	'room'	'significant other'	'to hang'	'break down'

Such cases as (11) force linguists to face two major issues. On one hand, there is a context for considering the presence of nasal assimilation, on the other hand, it is implausible to consider two rules (i.e. a nasal assimilation rule and a de-nasalizing rule) that have opposite effects. In fact, the contrast between words with (ṼN) syllables and those with (VN) syllables may indicate the presence of an underlying nasal vowel /Ṽ/ and an underlying oral vowel /V/ in HC, considering

that HC contains words that show contrast between nasal and oral vowels in non-nasal contexts, as in (12).

(12) Nasal-oral contrast in HC

[kã] 'goal'	[ka] 'case, situation'
[pã] 'peacock'	[pa] 'step'
[vɛ̃] 'twenty	[vɛ] 'cup'

An additional challenge to the regressive rule is found in words where nasalization is strictly prohibited, as seen in (13)

(13)			
	[lame]	[ʃam]	[zam]
	*[lãme]	*[ʃãm]	*[zãm]
	'army'	'charm'	'firearm, weapon'

To account for the absence of nasalization in words like [lame] 'army' and [zam]' weapon, arm' Nikiema and Bhatt (2003) posit the presence of an underlying /r/ which does not surface in HC but still blocks nasalization in the words originated from the French etyma. Some creolists have expressed significant reservations about Nikiema and Bhatt's hypothesis. According to Valdman (1992) and Chaudenson (1992), post-vocalic /r/ was considerably weakened and probably absent in the creators of HC. Valdman and Iskrova (2003: 28) also note that the French *germe* 'germ' can be realized in HC with the two variants [ʒɛm] and [ʒɛ̃m]. Cadely (1994: 161) suggests treating the cases in which the underlying /r/ blocks nasalization (e.g. HC: [kanaval] from the French [karnaval] 'carnival') as Gallicisms or exceptions because, according to him, they represent a partial set of words where the rule of nasalization fails to apply.

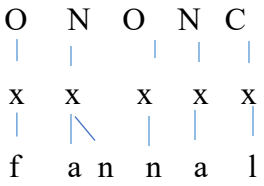
2.5.1 The Problem of variation in nasalization in HC lexical words

Another significant issue with the regressive nasalization rule is its inadequacy at capturing the variation that exists in the data of HC, a problem that has been recognized in both Cadely (1994) and Valdman & Iskrova (2003). HC has an extensive number of words which contain nasal-oral variation, as shown in (14).

(14) a. [kana] ~ [kãna] 'duck'
b. [fana] ~ [fãnal] 'lantern'
c. [remɛd] ~ [rẽmɛd] 'medicine'

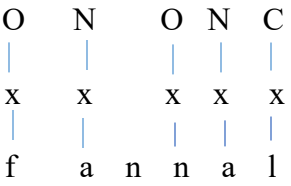
To account for (14), Cadely (2003: 5) suggests treating the nasal vowel as an underlyingly oral vowel followed by a floating consonant (/V*n*/). His lexical representation of nasality is represented as follow:

(15) a.



[fãnal]

b.



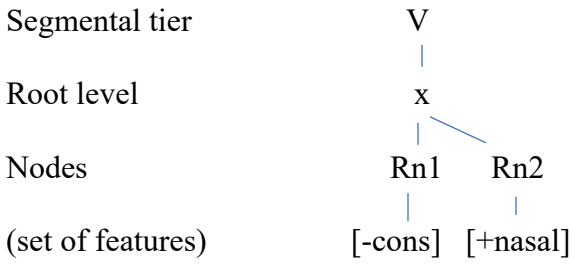
[fanal]

For Cadely, the two variants [fãnal]/[fanal] 'lantern' express the co-occurrence of the nasalized and non-nasalized forms in the HC lexicon. In (15a) the floating nasal consonant is attached to the skeletal tier, allowing the vowel to surface as a nasalized vowel, whereas in (15b) the unattached floating nasal consonant does not surface with the oral vowel.

However, Cadely's proposal has drawn criticism, particularly from Valdman and Iskrova (2003: 30) for not specifying under which conditions the floating nasal would be associated to the nucleus. In addition, Valdman and Iskrova note that the representation of the nasal vowel with a

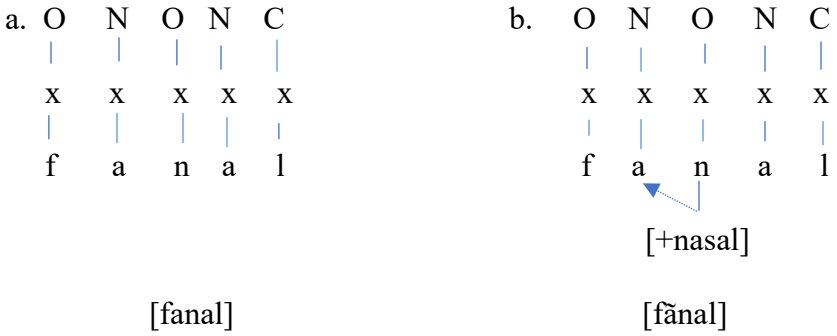
floating nasal consonant next to another nasal consonant (e.g. [fa(n)nal]) is in violation of the Obligatory Contour Principle (Goldsmith 1976, McCarthy 1988) and the syllable structure requirements which prohibit adjacent identical elements. Instead, they propose a different analysis that treats vocalic nasality as both underlying and derived in HC. They posit that the underlying nasal vowels are represented by biconstituency, whereas the nasal vowels that exhibit variation undergo regressive assimilation, as represented in (16).

(16) Biconstituency of underlying nasal vowels (Valdman and Iskrova 2003: 31)



The biconstituency of underlying nasal vowels approach posits an underlying vowel /Ṽ/, which consists of one segment with two root nodes. These two nodes carry both the vocalic feature: [-cons] and the nasality feature [+nasal], as shown in (16). What this approach suggests is that lexemes in which the nasal vowels are obligatory (e.g. [ʃãm] ‘room’; [vãt] ‘stomach, belly’) have underlying nasal vowels. In contrast, because the vowels in the lexemes like [kanif] and [ʃam] cannot be nasalized, they are assumed to be underlyingly oral. Additionally, for the lexemes exhibiting variation (e.g. [kana] ~ [kãna]’ duck’, [fanal] ~ [fãnal] ‘lantern’), Valdman and Iskrova (2003: 35) claim that they are marked to undergo optional regressive assimilation, as in (17).

(17) Optional nasalization through regressive assimilation (Valdman & Iskrova 2003: 35)



Valdman and Iskrova (2003) extend the biconstituency of underlying nasal vowels approach to deal with derived nasalization, i.e. nasal extension that occurs across morpheme boundaries (e.g. HC: padõ > padone/padõnẽ 'to pardon').

2.7.2 Derived nasalization

Derived nasalization can occur in the derivation of denominal verbs to which the verb suffix /-e/ is attached. As a result, nasal assimilation spreads rightward from nasal segments to vowels across morpheme boundaries, including the HC third singular possessive pronoun /li/, as well as the postposed determiner /la/. The data in (18) is a summary of Cadely (1994; 2003) and Valdman and Iskrova (2003)'s analyses of the denominal verbal suffix -e.

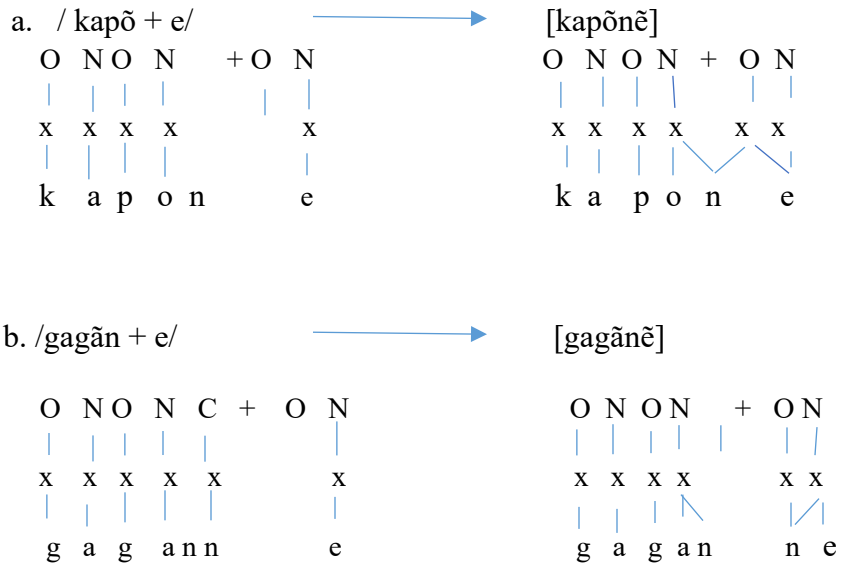
(18) Nasalization with the denominal verbal suffix -e

a.	[gagãn]	'throat'	gagãn + e	[gagãnẽ][4] /*[gagãne]	'to grab by the throat'
	[butõ]	'button'	butõ + e	[butɔ̃nẽ] / *[butɔ̃ne]	'to button'
	[kapõ]	'coward'	kapõ + e	[kapɔ̃nẽ] /*[kapɔ̃ne]	'to scare off'
b.	[padõ]	'pardon'	padõ + e	[padonẽ]/ [padone]	'to pardon'
	[desẽ]	'drawing'	desẽ + e	[KM,]/[desine]	'to draw'

[4]Even though I use the IPA symbols in the transcription of the nasal mid-vowels /ɛ̃/ and /ɔ̃/, they are often transcribed as /ẽ/ and /õ/ in the literature (e.g. Cadely 2003; Valdman and Iskrova 2003).

The data above have been grouped into two categories since the phonetic realizations of these denominal verbs have shown some differences. For instance, one can note that while progressive nasalization (almost) always occur with the verbal suffix /e/ in (18a), it applies variably in (18b). The two notable analyses that deal with them are Cadely's studies on nasalization (1994; 2003) and that of Valdman and Iskrova (2003). However, these two analyses diverge substantially. According to Cadely (2003: 18), there is a floating nasal consonant in the lexemes [kapɔ̃] and [butɔ̃] associated with the nucleus and the final coda, which is resyllabified in the following empty onset position, as shown in (19a). Nasal assimilation then spreads rightward (or progressively) to the oral vowel.

(19) Representation of nasalization in denominal verbs in Cadely (2003: 17-18)

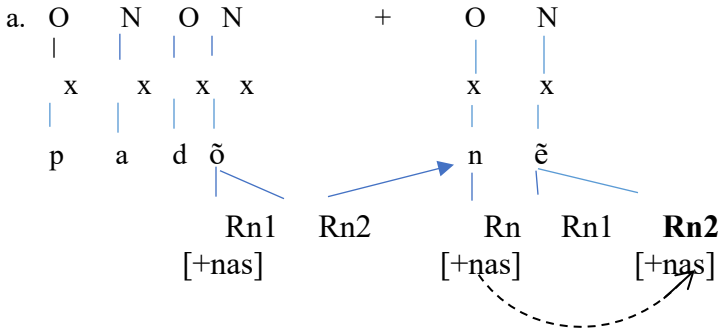


In (19b), the floating nasal consonant is only associated with the nucleus and the final coda is resyllabified in the following empty onset position. According to Cadely (2003: 18), the floating nasal consonant has the capacity to be realized twice in the coda and in the empty onset position,

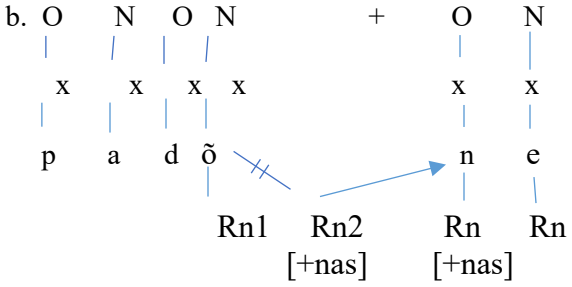
as in /kapõ + e /. But when a final coda is present, the empty onset is filled with the coda, as in /gagãn + e/.

Cadely's approach to nasalization within denominal verbs has once again drawn criticism from Valdman and Iskrova (2003: 38), who instead suggest two ways to fill the empty onset in HC. In words like /padõ/, they suggest that the nasal node can either delink from the vowel position to fill the empty onset or it can spread the [+nasal] feature onto the empty onset, as shown in (20a).

(20) Representation of nasalization in denominal verbs in (Valdman & Iskrova 2003: 38-39)



[padõnẽ]



[padone]

Valdman and Iskrova maintain that although the nasal vowel spreads its [+nas] feature onto the empty onset, it still remains associated with the root node of the vowel. Once the empty onset has been filled with the [+nas], the same feature may or may not spread to the suffix /e/.

2.5.3 Derived nasal consonants

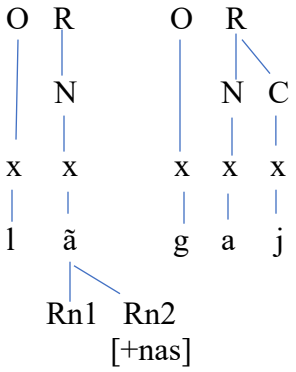
The derived nasal consonant constitutes a subject of disagreement as well. Valdman and Iskrova (2003:33) claim that the final voiced stops in the stems originated from French etyma are the same as those found in HC (e.g. Fr. /ʒãb/ 'leg', /flãb/ 'burn', /sãdr/ 'ash'), although these forms appear to have nasalized in HC: [ʒãm] 'leg', [flãm] 'flame' and [sãn] 'ash'. According to them, the voiced stops do not nasalize when a nucleus is attached to them, as seen in (21a).

(21)								
	/ʒãb/	(a)	ʒãbe +e	'to step over'	(b)	ʒãm	'leg'
	/vãd/		vãd + ɛz	'saleswoman'		vãn	'to sell'
	/lãg/		lãg + aj/aʒ	'parlance, expression'		lãŋ	'tongue'

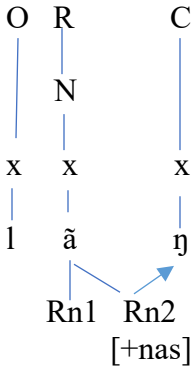
(Valdman & Iskrova 2003: 33)

In HC, the voiced stops /b/, /d/, and /g/ occur in the onset of the syllable and retain the features of the underlying form (e.g. /lãg+aj/~/lãg/). But these underlying voiced stops nasalize into [m], [n], and [ŋ] in the absence of a suffix, and thus, the nasalized allophones only appear in coda position (e.g. /ʒãb/> [ʒãm]; /vãd/ > [vãn]; /lãg/ >[lãŋ]). In (22a) for instance, Valdman and Iskrova's representation (2003: 33) shows that the velar stop /g/ in /lãg+aj/ appears in the onset of the syllable and retains its underlying feature (i.e. /lãg/) when attached to the suffix *-aj*.

(22) a. /lãg+aj/ >[lãgaj]



b. /lãg/ > [lãŋ]



When the stop is associated with the coda position, it attracts nasalization and becomes [ŋ]. Based on this, Valdman and Iskrova suggest that the stems are represented with the voiced stops rather than their nasal counterparts. Valdman and Iskrova's analysis of data (21) is consistent with treatments of Romance languages, particularly the Vimeu variety of Picard (José and Auger 2004) which exhibits stop-nasal alternation as in *réponne* [re.põn] 'to answer' vs. *répondu* [repõdy] 'answered'. In their analysis, José and Auger propose an underlying /d/ as in /re.põd/ which nasalizes in word final position [re.põn] to protect the coda from devoicing. When an affix is attached to the root, the stop /d/ surfaces faithfully. However, in his 2003 study on nasalization,

Cadely expresses explicit disagreement with this view, as he echoes Tinelli's remark (1978:348) that "in the perspective of a synchronic description, the French etymons /ʒãb/; 'leg'; /bãd/ 'group'; /sãdr/ 'ash'; /õgl/ ' nail'; and /bõb/ ' bomb' cannot be taken as the underlying forms for the HC surface formatives [ʒãm]; [sãn]; [zõŋ]; [bõm]".

2.5.4 Nasalization with the pronoun /li/ and the definite determiner /la/

Nasal assimilation can change the /l/ in the third person pronoun /li/ and the definite article /la/ into a nasal consonant [n] through the progressive nasalization rule (Hall 1953; Cadely 1994 & 2003; Valdman & Iskrova 2003).

(23) The assimilation of /l/ to /n/ in the pronoun and the definite determiner (Hall 1953)

a. /nõm la/ > [nõm nã] 'the man'
b. /zam la/ > [zam nã] 'the firearm'
c. /madãm li/ > [madam ni] 'his wife'
d. /jwɛ̃n li/ > [jwɛ̃n ni] 'find it'

Additionally, nasal assimilation can occur rightward from vowel to vowel across morpheme boundaries, particularly with the definite determiner, as in (24).

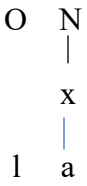
(24) Nasalization of the definite determiner (Valdman & Iskrova 2003: 36)

a. bãk lã	'the bank'	b. bak la	'the tray'
kabãn nã	'the bed'	chat la	'the cat'
pã ã	'the peacock'	pa a	'the step'

The definite article bears a nasal feature when the final syllable of the preceding word contains a nasal segment (e.g. *bãk lã*) but remains oral if there is no nasal context (e.g. *bak la*). The representation of nasality in the determiner has led some linguists to postulate nasal harmony (e.g. Bhatt & Nikiema 2006; Cadely 2003). Even though Valdman and Iskrova (2003: 40) suggest that different analyses might be responsible for the definite determiner, including nasal assimilation,

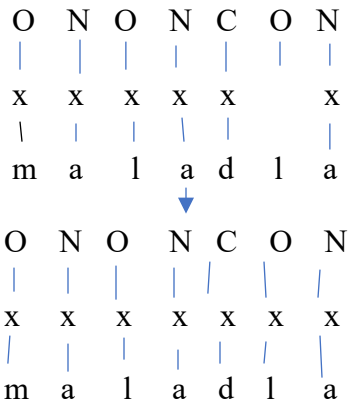
vowel harmony, and some hiatus repair strategies, they do not go further and provide a rigorous examination of the nasalization of the determiner. Cadely (2003), on the other hand, proposes that the consonant /l/ in both /li/ and the determiner /la/ is floating, as represented in (25).

(25) /la/ (Cadely 2003: 24)



His analysis suggests that the floating /l/ followed by a vowel must be assigned a timing unit. According to the Association Convention that he proposes, the floating segments must be associated to syllabic positions from right to left, as seen in /malad + la/.

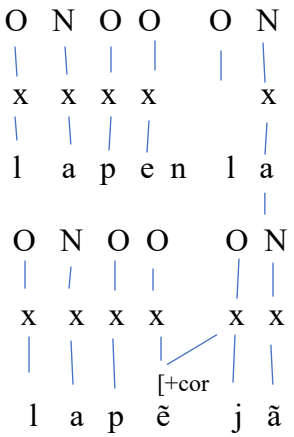
(26) /malad +la/ (Cadely 2003: 25)



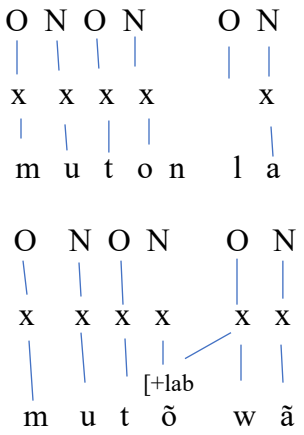
In this representation, the liquid consonant surfaces in onset because it is the only floating element that needs to be associated, and this position is the only one available. The same analysis accounts for cases of derived nasalization such as bank *lan* [bãklã] and *kabann nan* [kabãnnã], as well as [kapõnẽ], where the nasal consonant surfacing in the onset position of the suffix is the only floating segment in need of association (see example 19).

As for the cases of nasalization with the determiner following nasal vowels, Cadely proposes two floating segments for *lapen an* [lapẽjã] 'the rabbit', and *mouton an* [mutõwã] 'the sheep', as shown in (27)

(27) a. /lapẽ + la/



b. /mutõ + la/



Since progressive nasal assimilation generally occurs from a nasal consonant to another, and from vowels to vowels, once the floating consonant is linked to the nucleus, the surface form should be [lapẽlã] and [mutõlã]. However, the liquid does not surface. Instead, a semi-vowel is inserted yielding [lapẽjã] and [mutõwã]. Cadely points out that this description does not apply to low vowels such as *papa a* [papaa] 'the father' and *lajan an* [laʒãã] 'the money' which generally fuse whenever the two vowels are identical. As Cadely (2003: 26) points out, the description of the process of nasalization of the definite determiner /la/ brings out the problematic aspect of the

[+high] feature, that is, the nasalization of the determiner may take place when this morpheme appears after a high vowel. The issue of nasalization of the definite determiner /la/ is discussed more extensively in the next section.

2.6 Variation in the definite determiner *LA*

2.6.1 Diachronic changes in the determiners of French-Caribbean Creoles

The postposed deictic determiner, /la/ (*LA*) is often treated as the underlying form because it has been found to be the only form that occurs in early texts (Hazaël-Massieux 2008). *LA* shows extensive allomorphic variation in the French-Caribbean and Louisiana creoles. This form has diachronically developed into various allomorphs found particularly in southern Dominican, Martinican, St Lucian, and Trinidadian creoles (Carrington 1984; Damoiseau 1984). However, Bernabé (1983) also observes that *LA* remains unchanged in Guyana, Guadeloupe, and the northern part of the island of Dominican, as presented in the table 5.

Table 5 The determiner *LA* in the Antillean French-based Creoles

	Guyanese	Haitian; southern Dominican, Martiniquais, St Lucian, Trinidadian, Louisianan	Guadeloupean; Northern Dominican
After oral vowels	[a]	[a]	[la]
After oral consonants	[a]	[la]	[la]

(Adapted from Bernabé 1983: 14)

In Guyanese, the determiner *LA* is realized as [a], with no allomorphic variation. Similarly, in Guadeloupean and Northern Dominican, the determiner is realized invariably as [la] after lexemes ending in both oral and nasal vowels. However, in Haitian, Southern Dominican,

Martiniquais, St Lucian, Trinidadian, and in Louisiana creole (Klingler 2003) the determiner *LA* is realized as [a] after words ending in a vowel (e.g., *papa a* 'the father') and [la] after words ending in an oral consonant (e.g., *tab la* 'the table'). In other words, the consonant [l] surfaces if the preceding word ends in a consonant and deletes if the final segment of the preceding word is a vowel. With respect to nasality, it should be noted that the Antillean Creoles which allow variation between [la] and [a] also show variation between the nasal and oral allomorphs (Bernabé 1983). For instance, in Martiniquais, the determiner appears as *a* [a] after stems ending in an oral vowel, and as *an* [ã] and *lan* [lã] after a stem ending in a nasal segment, as can be seen in (28).

(28) Oral-nasal variation in the Martiniquais déterminer *LA* (Bernabé 1983: 15)

a. *Eti pyébwa-a ki té douvan kay Pyè a?*
And-little tree- DET Rel Past before house Pierre **DET**
'And the small tree that was in front of Pierre's house?'

b. *Eti moun-lan ki té dounvan kay Jilyen an*
'And-little person-DET Rel Past before house Julien DET
'And the little person that was in front of Julien's house?'

However, in Gualoupean Creole (Bonan 2013: 178-82), the definite article does not nasalize even when preceded by a nasal segment, as shown in examples (29) and (30).

(29) *Sé kaz-l**a** bèl*.
PLUR house-**DET** beautiful
"The/these houses are beautiful"

(30) [*Mouton-**la** ou vlé la*] *andidan a-y*
Mutton-**DET** you want DEF2 inside of-it
"The mutton you desire is inside it [=the box]"

These examples concord with Bernabé (1983)'s observation that there is a link between allomorphic variation of [la] and [a] and nasalization in the postposed determiner *LA*. That is, nasalization occurs in the determiner of the creole varieties where *LA* is variable (e.g. Haitian;

southern Dominican, Martiniquais, St Lucian, Trinidadian, and Louisianan). The next sections of this chapter are concerned with the distribution of the determiner in HC, as well as the relevant sociolinguistic development that have been occurring in the language.

2.6.2 The distribution of the definite determiner of HC.

Among the regions of the Caribbean where *LA* shows variation, Haiti is the country with the most extensive allomorphic variation: [la], [a], [lã], [ã], [nã] (Sylvain 1936; Faine 1936; Hall 1953; Valdman 1978; Dejean 1980; Joseph 1984; Jean-Baptiste 1992; Cadely 1996; DeGraff 2007). This variation is illustrated in (31).

(31) Distribution of the postposed determiner *LA* in Haitian Creole

(a)	/tab/	'table'	/tab + la/	[tab la]	'the table'
(b)	/bagaj/	'thing'	/bagaj + la/	[bagaj la]	'the thing'
(c)	/papa/	'father'	/papa + la/	[papaa]	'the father'
(d)	/diri/	'rice'	/diri + la/	[diri a]	'the rice
(e)	/ bã/	'bench'	/bã + la/	[bã ã]	'the bench'
(f)	/ʃ ɛ̃/	'dog'	/ʃ ɛ̃ + la/	[ʃɛ̃ ã]	'the dog'
(g)	/bãk/	'bank'	/bãk + la/	[bãk lã/la]	'the bank'
(h)	/mõt/	'watch'	/mõt + la/	[mõt lã/la]	'the watch'
(i)	/maʃin/	'car'	/maʃin +la /	[maʃin (n/l)ã]	'the car'
(j)	/lam/	'bread fruit'	/lam + la/	[lam (n/l)ã]	'the bread fruit'
(k)	/ʒenu/	'knee'	/ʒenu + la/	[ʒenu ã]	'the knee'
(l)	/lame/	'army'	/lame + la/	[lame a]	'the army'

In (31a-b), *LA* appears as the CV allomorph [la] after words ending in an oral consonant or a glide, whereas in (31c-d) it appears as the oral vocalic allomorph [a] after words ending in an oral vowel. For words ending in a nasal vowel such as those in (31e-f), *LA* appears as a nasal allomorph [ã]. There is variation between [lã] and [la] after words ending in a nasal vowel followed by an oral consonant, as shown in (31g-h). Another case of oral-nasal variation is found with words ending in a nasal consonant, as illustrated in (31i-j): *machin nan/lan* [maʃinnã/lã] 'the car' (Dejean 1980:

143). In example (31k), the definite article is realized as a nasal allomorph [ã] after syllables containing a nasal consonant and a high vowel (e.g. *jenou* [ʒenu] 'knee'), but when the vowel following the nasal consonant is a non-high vowel, the oral vocalic allomorph [a] appears (e.g. *lame* [lame] 'army'). In addition to contexts where *LA* occurs with noun phrases, HC allows the same form to occur with non-nominal structures (e.g. clauses, adverbs, locatives, etc.). My goal in the next section is to review this matter and set apart the cases in which *LA* functions as a determiner (DET) from those that are considered to be a non-determiner.

2.6.3 Nominal *LA*

In HC the determiner *LA* is a phrasal clitic that attaches at the end of the NP it modifies. Therefore, when more constituents (e.g. adjectives, relative clauses) are added to the NP, *LA* generally becomes the element to appear last, as observed in (32).

(32) a. *nèg* ***la***
man DET
'the man'

b. *nèg wo* ***a***
man tall DET
'the tall man'

c. *nèg ki fèk soti* ***a*** *malad.*
man Rel just leave DET sick
'The man who has just left is sick.'

d. *nèg* ***la*** *ki fèk soti* ***a*** *malad.*
man DET_1 Rel just leave DET_2 sick
'The man who has just left is sick.'

e. *dòmi ou dòmi **an** fè ou byen*
sleep you sleep DET make you good
'(the fact that) you sleep makes you look good.'

In example (32a), the determiner is postposed to the noun *nèg* 'man' because it is the single constituent of the NP. And as the adjective *wo* 'tall' modifies the noun *nèg*, as seen in (32b), the determiner attaches at the end of the adjective because both noun and adjective are the constituents of the NP. As a result, the form of the determiner varies from *la* to *a* because the word preceding the determiner ends in an oral vowel. *LA* also occurs with NPs that contain relative clauses, as seen in (32c). And again, the determiner is placed at the end of the NP it modifies. I note that Valdman (2015: 268-269) treats the occurrence of *LA* with relative clauses as sentential (hence, non-nominal). One peculiarity that can be observed regarding relative clauses is the double occurrence of the determiner (32d). When the determiner surfaces twice, one may appear with the head noun, while the other one occurs at the end of the relative clause. According to Valdman (2015: 268), the occurrence of *LA* with the head noun in the relative clause is optional at the surface level, depending on whether the speaker places emphasis on the head noun or on the event. Another possibility is that the double occurrence of the variants characterizes a linguistic change similar to that of cases of clitic doubling found in Chilean Spanish where the second person object pronoun *te* is marked twice: ***Te** voy a pagar**te*** 'I am going to hit you', as well as in English: '***more** clear**er**'* where comparative of superiority is indicated by both *more* and the affix *-er* (Belloro 2007; Silva-Corvalàn 1984; Mann 2012). Finally, in HC the determiner can be used to nominalize a verb, as shown in example (33e). Valdman (2015: 268), however, categorizes any occurrence of *LA* with a verb form as sentential (e.g. *Vini l vini an nève m.* 'The fact that she came made me nervous.'). While the nominalization of a verb with *LA* may contain some particular semantic features (e.g. co-referential) that differ from that of French: *le manger* '(the) eating' le *boire* '(the) drinking'),

the presence of the determiner may be used to nominalize a verb. Furthermore, verbal nominalization frequently occurs in HC with both definite and indefinite determiners (e.g. *Kouri a bon pou ou* '(the/this) running is good for you'; *Fè yon ti chita* 'Do a little sitting').

Semantically, nominal *LA* is anaphoric in HC. That is, it refers to someone previously introduced in discourse or pre-supposed information (not just any man, but a specific man who is tall and whom everyone knows). When *LA* follows an NP, it is referred to as a definite determiner by Valdman (2015), or as a *déterminant du nom* 'nominal determiner' in Lefebvre (1982: 31), and as *micro opérateur* 'micro operators' by Jean-Baptiste (1992: 133).

2.6.4 Sentential *LA*

It has been suggested that the form *LA* can appear with various types of function words and sentential structures in HC. According to Lefebvre (1982) and Valdman (2015) this may have some semantic implications. For instance, the expansion of *LA* to larger sentential constructions may expand its semantic interpretation such that it takes on anaphoric and deictic meanings. In this section I would like to discuss briefly some of the semantic and syntactic clues in order to distinguish the determiner (DET) from other occurrences of *LA* (e.g. sentential *LA*).

There is only one DET in example (33a), whereas the sentential *LA* following the verb modifies the entire sentence. Note that in contrast to nominalized cases seen previously in example (32e), the sentential *LA* modifies the entire sentence (Valdman 2015: 267). A determiner is part of a determiner phrase (DP) and modifies a noun. It does not modify a verb phrase (VP) or a sentence, a distinction that is not in accordance with Valdman (2015: 267) who uses the term 'determiner' to refer to both nominal and sentential *LA*.

(33) a. *Nèg* ***la*** *te ale* ***a*** **?**
man **DET** past go LA
'Had the man gone?' (As I was told he was going to)

b *nèg* ***la*** *te ale?*
man **DET** past go
'Had the man gone?'

c. *M pa wè poukisa ou pa marye* ***a***.
1sg Neg see why 2sg Neg marry LA
'I don't see why you are not married.' (As I thought you were going to)

d. *M pa wè poukisa ou pa marye*
1sg Neg see why 2sg Neg marry
'I don't see why you are not married.

Moreover, one can note that unlike the DET (which is non-optional), the presence of sentential *LA* is optional syntactically, but not semantically. For instance, the presence or the absence of sentential *LA* has some semantic implications when comparing the pairs 33(a) (b), and 33(c) (d). The presence and the absence of sentential *LA* may be used to draw a distinction between an information that is known/supposed/assumed (with the presence of *LA*) versus a neutral and/or general statement (with the absence of *LA*) (see Valdman 2015: 267-268).

2.7 Sociolinguistic variation in HC: the case of nasalization of *LA* in non-nasal environments

Contrary to the traditional description of the definite determiner *LA*, there have been cases of extension of nasalization to non-nasal environments. The nasal allomorphs [ã] and [lã] (*LÃ*) alternate with their oral counterparts [a] and [la] (*LA*) after words ending in an oral segment. This observation was made by Dejean (1980: 143), who provides the examples in (34).

(34) a. *tèt la/lan* 'the table'
b. *piti a/an* 'the small one'

The nasalization of the postposed determiner in non-nasal environments (i.e. after oral segments) is a phenomenon that has been mentioned in numerous studies (Sylvain 1936; Faine 1937; Hall 1953; Valdman 1978; Dejean 1980; Jean-Baptiste 1992; Cadely 1996; Nikiema 1999; and DeGraff 2007). According to Dejean (1980), the extension of nasalization to non-nasal environments is simply free variation. Later, Joseph (1984:87) characterizes the same phenomenon as a stylistic variant used by educated Haitian speakers in an attempt to use a form of speech that is "*plus ou moins recherché*" 'more or less refined'. But neither Dejean's claim (1980) nor Joseph's (1984) were supported by empirical data. The first diastratic study to have investigated the use of nasalization in non-nasal environments was conducted by Valdman in the early 80's and published in 1991. Valdman's methodology (1991) adopted a variationist approach which categorizes speakers by age, sex, and education. His pilot study included eight males and eight females. All the speakers were middle-class bilingual speakers (i.e., Creole and French) and residents of Port-au-Prince. Of the sixteen speakers selected, only two were identified as belonging to the higher-middle class group. The remaining speakers fell into the lower middle-class category. With respect to age, half of the subjects ranged in age between 18 and 25 (juniors), and half were between 40 and 60 (seniors). Roughly five to ten minutes of directed interviews were extracted from approximately an hour of guided conversation recorded with each speaker. The allomorphic variation between the oral determiner and its nasalized counterpart is shown in (35).

(35) Oral-nasal variation in the postposed determiner (Valdman (1991: 84)

Ou	*pa*	*ka*	*konte*	*sou*	*sinema-**a***	*pou*	*di*	*ke*	*lavi-**an***	*bèl*
2sg.	Neg.	can	count	Prep	movie-DET	Prep	tell	Comp	life-DET	nice

'You can't count on the movies to say that life is nice'

In example (35), the determiner *LA* is realized the first time as *a* and the second time as *an* in the same utterance. However, what is striking is the fact that the two forms are produced in the same context (i.e. after a word ending in an oral segment: *sinema* 'cinema' and *lavi* 'life'). The variation between oral and nasal forms of the determiner *LA* is similar to patterns like those in example (35). The results of Valdman (1991)'s study suggest that younger speakers were extending the domain of nasalization to non-nasal environments more frequently than their older peers. For example, the rate of nasalization of the determiner in non-nasal environments among the younger speakers was significantly higher (42.9%) than the rate of nasalization of the older speakers (3.6%). For words ending in an oral consonant, the frequency of nasalization was about 55.5% among the younger subjects versus 4.5% among the older subjects. And for nasalization with oral vowels, the frequency was 28.3% for the younger speakers and 2.5% for the older speakers. However, the results found no significant difference between men and women (i.e. 24.7% of nasalization for males and 25.8% of nasalization for females).

On the basis of these findings, Valdman (1991: 84) drew two important conclusions. First, given that the percentage of nasalization was higher among the younger speakers, there was a linguistic change in progress that was led by the younger speakers. Second, because there were more occurrences of nasalization with words ending in a consonant than there were with the vocalic ones, he suggested that the change was affecting consonantal environments faster than the vocalic ones.

Table 2.6. Nasalization in the Definite Determiner among Middle-Class Port-au-Prince Speakers (Valdman 1991: 84; 2015:.332)

Speaker			Post-vowel frequency	%	Post-consonant frequency	%	Total frequency	%
Juniors								
13	M	2+	13/21	61.9	49/52	94.2	62/73	84.9
14	F	2+	13/20	6.4	42/47	89.7	55/67	82.1
16	F	2+	23/31	74.2	28/42	66.17	5/73	69.9
18	M	1	21/43	48.8	39/47	83	60/90	66.7
3	F	2	18/60	30	39/60	65	57/120	47.5
1	M	1	27/105	25.7	69/103	67	96/208	46.1
4	F	1	8/57	14	6/57	10.5	14/114	12.3
2	M	2	2/105	2	13/105	12.4	15/120	7.1
			125/442	**28.3**	**285/513**	**55.5**	**410/955**	**42.9**
Seniors								
17	F	1	5/18	27.8	4/25	16.3	9/4	20.9
12	F	2	1/11	9.1	3/29	10.3	4/40	10
15	M	1	1/21	4.8	3/35	8.6	4/56*	7.1
8	M	1	0/44	0	3/44	6.8	3/88	3.4
7	F	2	1/78	1.3	4/79	5.1	5/158	3.2
5	F	2	1/91	1.1	1/91	1.1	2/182	1.1
6	M	2	0/91	0	1/91	1.1	1/182	.5
11	M	2	0/2	0	0/25	0	0/27	0
			9/357	**2.5**	**19/419**	**4.5**	**28/776**	**3.6**

Despite its innovative contribution in the field of HC sociolinguistics, Valdman's pilot study (1991) shows various limitations. The first limitation is that the research contains a relatively small pool of subjects. Second, the group of selected speakers is not socially diverse in a sense that it only includes a single group of speakers (i.e. urban-educated speakers). Third, the method for

gathering data did not include different strategies for eliciting natural speech (e.g. in pair interviews). Finally, there is no focus on linguistic factors, particularly high vowels.

2.7.1 Oral/nasal contexts

The traditional description of the determiner *LA* often takes into account the final segment as the environment conditioning allomorphic variation of *LA* (tab la *'the table'* vs. *zam nan* 'the firearm'). However, there are cases where nasalization may spread beyond the influence of the final segment (e.g. *bank lan/la* 'the bank'). For example, it is difficult to account for the nasalization of *LA* in *jenou an* 'the knee' and its absence in *banbou a* 'the bamboo' and *lame a* 'the army' without considering the influence of both the nasal onset and vowel height (NV). In my preliminary analysis of my data (Tézil 2019), I proposed to distinguish nasal contexts from non-nasal contexts based on the syllabic structure of the final lexeme, as shown in table (2.7).

Table 2.7. Nasalization and Non-nasalization Contexts
(Adaptation from Tézil 2019)

Nasalization contexts	**Syllables**	**Examples**	**Gloss**	**Non-nasalization contexts**	**Syllables**	**Examples**	**Gloss**
Oral consonant+ nasal vowel	CṼ	*vã ã*	the wind	Oral consonant + oral vowel	CV	*papa a diri a*	the father the rice
Oral consonant + oral vowel + nasal consonant	CVN	*dam nã*	the lady	Oral consonant + oral vowel + oral consonant	CVC	*makak la*	the monkey
Nasal consonant + high vowel	$NV_{(+high)}$	*ʒenu ã*	the knee	Nasal consonant + non-high vowels	$NV_{(-high)}$	*lame a anana a*	the ocean the pineapple
Oral consonant+ nasal vowel + oral consonant	CṼC	*bãk lã*	the bank	Nasal consonant + oral vowel + oral consonant	NVC	*klinik la*	the clinic

The table is divided into two columns. The left columns are for contexts where nasalization is categorical or, at least, expected to be. The right columns are for contexts where nasalization is not expected or variable. Words ending in CṼ, CVN, $NV_{(+high)}$, and CṼC constitute the environments where the nasalization of *LA* is usually expected in HC. In words ending in CV and CVC, nasalization is not expected. Oral-nasal variation may occur in NVC and in $NV_{(-high)}$, particularly when the nucleic vowel is mid (e.g. *lame a/an* 'the army). Additionally, when comparing the distribution of *LA* following words ending in NV syllables, it is noted that high vowels attract nasalization on *LA* almost categorically, whereas non-high vowels may or may not nasalize. Because the presence of a nasal form of the determiner is obligatory after $NV_{(+high)}$, I treated it as a nasal context.

(36) a. *pitimi an* [pititmijã] 'the millet'
b. *jenu an* [ʒenuwã] 'the knee'
c. *anana a* [anana:] 'the pineapple'
d. *lame a/an* [lameja]/ [lamejã] 'the army

LA almost never nasalizes when the vowel in the NV syllable is low (e.g. *anana a*/**an*), whereas variation may occur if the vowel is mid. Because of the difference in the definite determiner following NV syllables, Tinelli (1981) suggests that the final [i] might have already been nasalized through progressive assimilation by the onset [m], which then creates a nasalized context for the determiner to be nasalized. On the other side, there is the argument which posits the phonemic status of nasal high vowels (e.g. Cadely 1994). Regardless of their status (i.e. phonemically nasalized or not), the fact that *LA* is nasalized categorically when preceded by $NV_{(+high)}$ supports the claim that this context is a nasalization environment for the determiner. Given the important connection between vowel height and nasalization, we now turn our attention to a discussion of their relationship.

2.7.2. The relationship between vowel height and nasalization

Although Valdman did not take into account the effect of linguistic factors in his pilot study (1991), he noticed the frequent occurrence of nasalization with high vowels in non-nasal contexts in his Capois data (e.g. *vodou an* 'the vodou', *peyi an* 'the country) (Valdman 2015:334). Phonetic studies (Rochet & Rochet 1991, Dow 2014) focusing on the spread of nasality have found a relationship between nasalization and vowel height. For example, Dow (2014: 41) observed that high vowels appear to be the easiest to nasalize and be perceived as nasal, and low vowels the most difficult. Yet, he also recognized that not only may contexts play a role but also these differences are language specific. His study (Dow 2014) demonstrates that while all high vowels showed higher rates of nasalization in French and Picard, a difference emerged in the mid and low vowels. French showed low rates of nasalization on mid and low vowels, while Picard showed high rates of nasalization on these vowels, especially on the vowel /a/. One of the main differences between the articulations of an oral vowel and its nasal counterpart is that the quality of the vowel often changes as nasalization occurs (Beddor 1983). In Chipewyan, for instance, the mid oral vowels [e, ɛ] alternate with the high nasal vowel [ĩ] (Beddor 1983). Studies on articulation of French nasals report that the vowel /ɛ̃/ is lower and farther back than /ɛ/, whereas /ɔ̃/ is rounder and farther back than /ɔ/ (Brichler-Labaeye 1970; Dow 2014). This leads me to agree with both Dow and Beddor that nasalization is a process that implies more than simply adding nasality to an initial vowel.

As seen in Figure 2.2, in CV syllables, oral-nasal variation only occurs with high and mid vowels (i.e. ***ane*** 'year', *di**ri*** 'rice, and ***pate*** 'patty'). While nasalization of *LA* is obligatory on the leftmost side in $NV_{[+high]}$: [ʒe**nu**], the oral variant is obligatory on the rightmost side with [papa].

Fig. 2.2. The nasalization of *LA* in open syllables (Tézil forthcoming)

Based on his observation of this phenomenon Valdman (2015: 334) suggested that: "A tentative hypothesis, which requires empirical validation, is that nasalization first spreads to the context of nasal consonants plus high vowels, e.g., *seremoni an* 'the ceremony', *jenou an* 'the knee… and then to these two vowels outside of the context of nasal consonant." However, it appears to me that even if this hypothesis is true, low vowels should be described as resisting nasalization of the determiner when they occur in open syllables (e.g., CV: *papa* a/**an*) and allowing it to spread if the vowels are closed by a coda (e.g. *patat la/lan* 'the sweet potato'). This observation was implicitly made by Valdman (1991: 84) as well. Although he did not analyze the effect of vowel height on nasalization, he noticed that nasalization was affecting consonantal environments faster than vocalic ones. I suppose that, perhaps, Valdman's observation could be explained by the same nasal trajectory which illustrates the resistance of low vowels to nasalization in open-syllables and less resistance to nasalization in closed-syllables.

2.8 Conclusion

This chapter is divided into two sections. Section 1 is a review of issues related to variation and language change. One influential hypothesis made by the Neogrammarians was that the laws of sound change operated without exceptions. They also claimed that that change cannot be observed. But this traditional view has been challenged by variationists such as Labov (1966) and Milroy (1987) who introduced fundamental approaches to researching changes in progress. These

approaches included both social and linguistic factors. I extended the discussion to variation and change in the creole languages, which are claimed to occur based on a on a continuum model where creole speakers' speech varies either farther or closer to the lexifier language. Therefore, the closer the speech is to the lexifier, the more decreolized their speech is. Because many creole languages remain understudied, sociolinguistic variation and other linguistic developments (e.g. stylistic, borrowing, calques, codeswitching, etc.) continue to be mischaracterized as decreolization. Haitian Creole often presents a challenge to the continuum model as well as the decreolization concept. As Haitian French remains more static and continues to play its symbolic role in Haiti, HC continues to gain prestige as it is increasingly used in domains that used to be traditionally reserved to French (e.g. Catholic mass, media, political speeches). Even in extremely formal settings (e.g. Haitian parliament, church sermons), there has been an increased use of codeswitching where the text is read in French and commented on in Creole. This shows that there is a boundary between the two languages, as HC assumes its own linguistic development (e.g. regional variation, sociolinguistic variation) apart from the influence of French.

In Part B, I reviewed four studies conducted on regional and sociolinguistic variation in HC. The first two studies are two dialect topolectal surveys that were undertaken by Orjala (1970) and Dominique Fattier (1998). Both studies provide data on the geographical distribution of many variants in the language. In view of growing urbanization and other social and demographic changes in Haiti, these studies need to be updated. In addition, there is also the question of whether the selection of a variant (e.g. front rounded vowels vs. front unrounded vowels, nasal vs. oral, etc.) by a speaker could have been motivated by his or her social profile. As Valdman noted (2015:320), because Orjala's consultants were bilingual, they were more likely to be influenced by French than those of Fattier's. Further questions might include whether or not these variants

were frequent, and even the question of whether or not these forms were archaic at the time of the data collection. Even though Orjala's (1974) and Fattier (1998) do not take into account diastratic factors, they are valuable diatopic studies.

In general, there is an absence of diastratic (sociolinguistic) studies in HC. Valdman's (1991) pilot study and his Capois study (Valdman 2008; Valdman, Villeneuve, & Siegel 2015) are the only two such studies conducted on the language. These two studies provided significant methodological models for future sociolinguistic research in HC. For instance, Valdman and his team found that although some of the northern variants (e.g. 3SG, POSS, TO GO, etc.) constituted a localized feature for some northern speakers, for others they were social variables. In his pilot study, Valdman (1991) also found a link between the use of nasalization in non-nasal environments and the social profile of the speakers. In Haitian Creole, the determiner shows the non-nasal variants *la*, *a* after non-nasal (oral) consonants and vowels respectively, e.g. *chat la* 'the cat', *zwazo a* 'the bird'. After nasal phonemes, nasalized variants occur: *moun nan* 'the person', *chen an* 'the dog'. His study shows that younger speakers have a significantly higher rate of nasalization than older speakers of comparable social standing. Therefore, he suggested that there is a linguistic change in progress led by younger bilingual (French-Haitian Creole) urban speakers.

Empirical studies using data collected through a wide range of methods (guided conversations, conversation in pairs, data elicitation, etc.) are necessary to determine the role of social and linguistic factors that favor and disfavor nasalization. This new approach should be motivated by the assumption that speakers might be willing to violate certain linguistic constraints (Prince and Smolensky 1993) in order to comply with stylistic and social circumstances (e.g. formality). Valdman (2015: 334) suggests that Haitians are increasingly becoming aware of the variable use of [l(ã)] after words ending in an oral segment, as he characterizes nasalization of *LA*

in non-nasal environments as the "…feature of which speakers were not generally aware twenty years prior, had reached the level of a stereotype, a linguistic variant of which speakers are highly conscious, and which is the topic of discussion". Before considering testing speakers' awareness of the change, it is necessary to test whether the nasalization of *LA* in non-nasal contexts has extended to different social categories (e.g. age, sex, bilingual/monolingual, etc.), and examine the extent to which the change has spread. Overall, there is not very much done on sociolinguistic variation in HC, and one the main goals of this dissertation is to broaden Valdman's pilot study (1991) and to fill a great void in this area of research.

Chapter III: Methodology

3.0 Introduction

The nasalization of the post-posed determiner *LA* following words ending in an oral segment (e.g. *tab la/lan, diri a/an* 'the rice') is a phenomenon that has been noted by some linguists over the decades (Sylvain 1936; Faine 1936; Dejean 1980; Joseph 1984), but has only been examined empirically by Valdman (1991) who provided evidence for its presence and its link to a certain group of speakers, namely young urban bilinguals. To investigate whether the extension of nasalization of *LA* to non-nasal environments has persisted following Valdman's study (1991), I conducted a large-scale sociolinguistic research in Haiti and subsequently aim to answer three main questions. The first research question (RQ)is stated as follow:

> **RQ1**: Has nasalization of *LA* in non-nasal environments spread to monolingual and rural speakers?

In order to provide substantive empirical answers to this question, I recruited a large pool of native speakers of various social backgrounds, including those originating from rural and urban areas of Haiti. I went one step further and administered a French proficiency test which allowed me to distinguish bilingual speakers from monolingual speakers. Next, I examined the linguistic factors, as expressed in the next question.

> **RQ2:** Is the use of *LA* in non-nasal environments conditioned by any linguistic factors?

Considering the determiner of Haitian Creole is postnominal, I account for word-final syllables in order to determine the linguistic contexts that favor nasalization of the determiner, as well as those that disfavor it. These environments are comprised of onset, nucleus, and coda. My next research question can be stated as follows:

RQ3: Is there a link between the Frenchified features used in HC and the nasalization of *LA* in non-nasal environments?

Frenchfified features include the use of front rounded vowels and the post-vocalic [r] by some Haitian speakers, particularly the bilingual ones. It is possible that there may be a correlation between the nasalization and front rounded vowels given that the determiner comes after the word it modifies.

To answer these three research questions, I designed a study that significantly improves upon Valdman's research methodology and greatly expands the social and geographical characteristics of the speaker pool. Section 3.1 is a summary of speakers' social profile followed by a description of the criteria used to distinguish bilingual speakers from the monolingual ones (§3.2). In section 3.3, I present the procedures used to conduct the research interviews, as well as the protocol for eliciting the singular form of the determiner *LA* ((§3.4). Sections 3.5 and 3.6 present the sociolinguistic variables that are accounted for in this study. The conclusion follows in section (3.7).

3.1 Speakers' social profile

3.1.1 Speakers' location

The data come from interviews conducted with these 32 speakers. Sixteen respondents were natives of Carrefour (urban) and the remaining sixteen were natives of Béraud (rural). The two regions have radically different geographical landscapes and standards of living. Carrefour is a relatively urbanized municipality in the Western department and constitutes one of the largest residential municipalities in the Port-au-Prince Arrondissement (about 467,000 residents

according to the *Institut Haïtien de Statisque et d'Informatique*, IHSI 2012).[5] Many of the residents of Carrefour (pronounced "Kafou" in HC), commute to central Port-au-Prince, for work. The municipality of Carrefour is a major crossroads in the daily commute of thousands who are traveling to the departments of the Southeast, the Nippes, the South and the Grand-Anse.

Béraud, in sharp contrast, is a small rural village in the Torbeck municipality of the Les Cayes Arrondissement, in the south of Haiti. According to the same socio-demographic report published in 2012 by IHSI, the capital of the southern department, Les Cayes, (with a population estimated at about 79,000), is the third largest city of Haiti following the city of Port-au-Prince (942,000) and the city of Cap-Haitian (163,222).[6] The distance between Béraud and Les Cayes is about 13 km, and a 30 minute drive.

As indicated in map 3.1, speakers of Béraud and those of Carrefour are located approximately 200 km from each other. Depending on the road conditions as well as the traffic, it could take from 4 to 6 hours to travel from Carrefour to Béraud and vice versa. Located in the western part of the Port-au-Prince area, Carrefour is a favored residence for Béraud residents who migrate to the capital. Carrefour is one of the nearest urbanized centers to Port-au-Prince, many residents of Béraud migrate to Carrefour. Some of the Béraud respondents told me anecdotally that they had relatives and friends who lived in that suburb, but I do not have empirical evidence available to test whether or not this results in more contact with the Port-au-Prince Creole variety.

[5] This number comprises only the urbanized areas (i.e. *Ville de Carrefour*). However, there are over 20,000 Carefour residents who live in the rural areas (i.e. *sections rurales*) (*Institut Haïtien de Statisque et d'Informatique,* IHSI 2012)

[6] These numbers refer only to the heart of the cities (e.g. downtown), and do not include the suburbs.

Figure 3.1. Map of Haiti (Source: The United Nations, January 2019)

There are three regions of importance near Béraud: the city of Les Cayes, and the municipalities of Chantal and Ducis (see Map 2). Many residents of Béraud commute to Les Cayes by taxi motorcycles for work, school and business. The neighboring towns Chantal and Ducis are also central in the lives of Béraud residents' due to the farmers markets located there.

Figure 3.2. Map of Béraud and its two neighboring municipalities

(Source: Distance Calculator, 9/3/2016)

3.1.2 Speakers' sex

In Chapter 2, I discussed the results of Valdman's pilot study (1991: 84) in which he found the sex of his participants to be a non-significant variable influencing the use of nasalized form of *LA* in non-nasal environments. In this dissertation, I revisit this relationship by examining sex-based differences among a diverse pool of speakers, including monolingual and rural speakers. My sample of 32 speakers is comprised of 16 males and 16 females. I include 8 males and 8 females from Carrefour and 8 males and 8 females from Béraud. I double the size of the speaker pool in this study compared to Valdman's 1991 study, enabling me to better assess the significance of sex in the use of nasalization of *LA* in non-nasal environments.

3.1.3. Speakers' age

In order to determine whether nasalization is a change in progress, I strategically selected two generations of speakers similar to those of Valdman (1991). These two generations include 16 speakers whose ages ranged from 18 to 25 (juniors) and 16 speakers between 40 and 60 years of age (seniors). I carefully selected this age range for the seniors because this is the age that speakers from Valdman's 1991 sample of junior speakers would have been at the time I collected this data.

3.1.4 Occupation

The most common occupations of the vendors are retailing. Their activities include purchasing goods (e.g., a few sacks of rice) from wholesalers and selling those in smaller portions (e.g., tin cans) at open markets or somewhere closer to their neighborhood. The ones working as housekeepers, maids, or custodians are typically employed by upper and middle-class Haitian's (e.g., bankers, priests, professionals). However, there is a difference in occupational activities among those living in urban and rural areas. While the older men with lower education living in the Carrefour areas often earned a living from manual labor (e.g. temporary and occasional businesses ventures such as collecting garbage from individual homes, carrying water for people, stewards or janitors, carpenters, construction laborers), those living in Béraud were mostly farmers. Almost all of the speakers from Béraud sold or bartered goods, such as cattle and fresh produce at farmers' markets in Chantal and Ducis. Finally, those who were relatively more literate in both areas usually worked as teachers. This is explained extensively in section 3.4.3. I coded occupation dichotomously for non-manual and manual laborers. The non-manual laborers comprised of businesspeople, teachers, and students while the group of manual laborers was composed of those who work as custodians, construction workers, maids, farmers, and vendors.

3.1.5 Education

Three of the subjects had completed a college degree, and eight had attained at least a total of eleven years of schooling (i.e. five years of primary and six years of secondary education). Students who are in their 11th year of education (commonly known as *rhétorique* or just *rhéto*) have to complete the first part of the official "*Baccalauréat*" exam before being admitted to the next and final grade (also known as *philosophie* or just *philo*). After the completion of the *philosophie* followed by the second part of the *Baccalauréat*" exam, students can attend university. Additionally, seven of the subjects had never been to school (0), six had completed only a few years of primary education (2-6 years), and eight of them had less than five years of secondary education (7-10 years). In Haiti, students generally start secondary school on their 7th year of schooling.

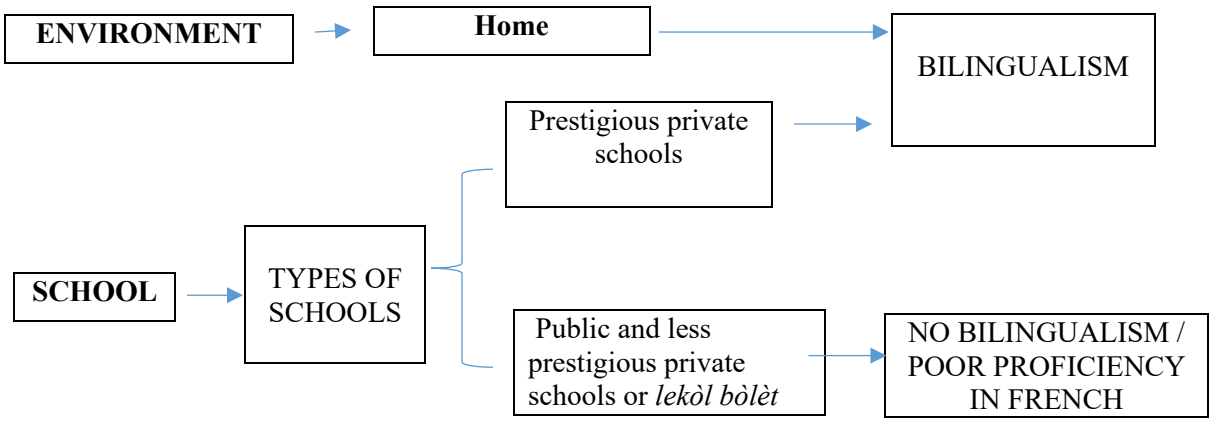
Because the choice of school seems determined by parents' economic situation, many Haitian parents must send their children to poor quality private schools that charge lower tuition. These schools tend to hire teachers with lower levels of education and training. as is the case of goods sold instore or in market, in Haiti, education is a commodity obtained by bargaining. Haiti's education system is rife with this 'bargaining culture'. As a result, not only is the quality of the instruction received by the students attending *lekòl bòlèt* (lottery school), but their contact with French is very limited and somehow inadequate (Joseph 1980; Laguerre 2010)

3.2 Establishing speaker's bilingualism in the study

3.2.1 Becoming bilingual in Haiti

There are two ways Haitians become bilingual. Children of the elite learn French at home, as well as from contact with the francophone world (i.e., through trips to France or Canada, study abroad, etc.). Average Haitians (often called *pèp la* 'the people') learn French in school. The type of schools one attends plays a significant role in the acquisition of proficiency in French. "Good" Haitian schools are those characterized by higher tuition, stricter discipline, highly educated teachers, and an intense focus on the use of French. "Bad" or mediocre schools are characterized by cheaper tuition, less educated teachers, and less focus on French. Haitians who attend "good" schools have an added advantage in acquiring bilingual proficiency due to their potentially increased contact with elite Haitian students who are often fluent in French before they begin school, as seen in figure 3.

Figure 3.1 Social contexts in which Haitians become bilingual



Haitians with more education are generally more proficient in French than their less educated peers. However, because Haitians experience such a complex sociolinguistic landscape, education level is not always predictive of French proficiency. There are cases within my sample in which highly educated speakers are less proficient in French than their less educated peers. Therefore, it is crucial that the study of bilingualism in Haiti must determine both speakers' level of education and their proficiency in French separately.

3.2.2 Education (Schooling)

The education of Valdman's subjects (1991: 84) was determined based on the number of years of schooling completed. For instance, all his subjects had completed at least the fourth year of secondary education (*troisième*) because they were all bilingual and middle class. But in the present study, given that the sample of speakers is more diverse (with no education, primary education, some secondary education, college degree, etc.), I categorize speakers as having lower than average education or average or higher education. On average, the speakers in my sample completed 7 years of schooling. Thus, speakers categorized as having "lower than average education" are those who completed less than 7 years of schooling. Speakers who completed 7 years of schooling or more are categorized as having "average or higher education." Finally, I use the terms schooling, level of schooling, and education, interchangeably in this study.

3.2.3 Level of proficiency in French (Proficiency)

To distinguish between monolingual and bilingual speakers, I conducted a short French proficiency test with each respondent, which lasted 10 to 20 minutes (see Appendix G). The questions varied by level of difficulty. First, I asked basic questions in which participants were

asked to tell me their name, hobbies, likes and dislikes. I then proceeded to ask more difficult questions that required the use of more complex grammatical structures, such as the subjunctive and conditional, in the respondent's response (e.g. *Qu'est-ce que vous feriez si vous aviez de l'argent*; *Qu'est-ce que vous faisiez quand*…).

Based on these proficiency tests I then classified each speaker as proficient or non-proficient. To be categorized as a proficient speaker the respondent had to score at least 7 out of 10 total points. Speakers could earn a total of 10 points across skills presented in the Table 3.2.

Table 3.2. Rubric for determining speakers' proficiency in French

Skills	Scores
A. Subjunctive and/or conditional	3
B. Adjective agreement	2
C. Subject-verb-agreement	2
D. Basic social needs	1.5
E. Familiar topics	1
F. Greeting and introducing oneself to others	0.5

I allocated 3 points for using subjunctive (e.g. *Il faut que tu viennes* 'You must come over.') or conditional (*S'il m'avait appelé, je l'aurais aidé* 'If he had called, I would have helped him'); 2 points for providing correct adjective agreement (e.g. *Son petit cousin est très méchant* 'His little cousin is very mean' *vs Sa petite nièce n'est pas méchante du tout* 'His little niece isn't mean at all.'); 2 points for using correct subject-verb agreement (e.g. *Ils nous ont appelés* 'They called us' *vs Il nous a appelés* 'he called us'); 1.5 points for terminology related to basic social needs (e.g. food, transportation, rural life, urban life); 1 point for familiarity with topics related to families; and 0.5 points if the participant could greet s and/or introduce him/herself to others in French (e.g. *Bonjour!* 'Good morning'; *Je m'appelle…* 'My name is…'). Because there is no gender distinction in Haitian Creole, these features-particularly subject-verb-agreement, adjective

agreement, and subjunctive- are essential elements in setting Haitian French apart from Haitian Creole (e.g. *Ti kouzen an mechan* 'The little (male) cousin is mean' and *Ti nyès la mechan* 'The niece is mean').

It is important to note, however, that it is possible for a participant to be categorized as proficient without the use of subjunctive and/or conditional. This decision was made in part because of recent cases of variation between subjunctive and indicative in several French varieties, specifically in Quebec French. For instance, Poplack *et al*. (2013:190) found that in Quebec French, only a small group of "governors" (e.g. *falloir, vouloir, aimer, pour que*) and embedded verbs (*aller, avoir, faire, être*) continue to be used with subjunctives, while subjunctive selection with other verbs which traditionally used with subjunctive has declined.

(37) a. Moi je suis dans le ghetto, fait que là il faut que tu *sois* (subj, *être*) tough. (21C.103.561)
'I'm in the ghetto, so there, you have to be tough.'

b. Fallait que moi *j'aille* (subj, *aller*) espionner chez le voisin. (21C.113.131)
'I had to go spy on the neighbor.'

c. Bien, ils aiment mieux que je *fasse* (subj, *faire*) du sport que je *fasse* (subj, *faire*) des niaiseries. (21C.116.325)
'Well, they prefer that I do sports than make mischief.'

d. Elle veut que j'*aie* (subj, *avoir*) une peine d'amour. (21C.007.676)
'She wants me to have a broken heart.'

In the determination of the level of proficiency in French, the use of the subjunctive was given the highest score. A speaker scores 3 points if he or she uses subjunctive when verbs such as *falloir, vouloir, aimer, aller, faire, être*, and the conjunction expressing intention, *pour que,* are present in the matrix. I do not penalize the speaker if he or she uses the indicative in contexts that do not include these governors (e.g., required use of subjunctive with *falloir*: *Il faut que tu*

*viennes/*viens;* and variation with *je suis heureux que…*: *Je suis heureux qu'il est/soit venu me voir*). Finally, speaker's social categories are presented in table 3.2.

Table 3.2. Speakers' social categories

Participants	Sex	Birth year	Occupation	Years of schooling	French Proficiency Score	Bilingual
1. FJUb1	F	1993	Teacher	College degree	9.5	Yes
2. FJUb2	F	1996	Student	11+	7	Yes
3. FJUm3	F	1992	Vendor	0	1	No
4. FJUm+4	F	1997	Student	7	5	No
5. FSUb5	F	1965	businesswoman	12+	8	Yes
6. FSUb6	F	1968	teacher	College degree	9	Yes
7. FSUm-7	F	1975	Vendor	2-4	1	No
8. FSUm-8	F	1966	Vendor	0	0	No
9. MJUb9	M	1996	Student	10+	7	Yes
10. MJUb10	M	1998	Student	11	6	No
11. MJUm+11	M	1994	vendor (drop out)	8-9	6	No
12. MJUm+12	M	1997	student (drop out)	7-8	5	No
13. MSUb13	M	1971	teacher	College degree	9.5	Yes
14. NSUb14	M	1961	teacher/construction worker	11+	8	Yes
15. MSUm-15	M	1972	vendor/retailer	2-4	2	No
16. MSUm-16	M	1968	vendor/retailer	0	.5	No
17. FJRb17	F	1992	Student	11	7	Yes
18. FJRb18	F	1994	Student	10	7	Yes
19. FJRm-19	F	1998	Housekeeper	0	0	No
20. FJRm-20	F	1991	vendor	3-5	3	No
21. FSRb21	F	1973	primary school teacher/political activist	9-10	7	Yes
22. FSRb22	F	1966	primary school teacher	8-9	7.5	Yes
23. FSRm-23	F	1969	farmer/Vendor	0	.5	No
24. FSRm-24	F	1956	seamstress	4-5	2	No
25. MJRb25	M	1992	college student	12+	8.5	Yes
26. MJRb26	M	1991	HS Student	12	8.5	Yes
27. MJRm-27	M	1996	house janitor/custodian	0	.5	No
28. MJRm-28	M	1992	bricklayer/construction worker	4-5	3	No
29. MSRb29	M	1971	school assistant principal/politician	12+	8	Yes
30. MSRb30	M	1971	teacher/Motorcyclist	7-8	7.5	Yes
31. MSRm-31	M	1976	Farmer	0	1	No
32. MSRm-32	M	1965	tailor & farmer	5-6	5	No

F: Female; **M**: male; **J**: Junior; **S**: senior; **b**: bilingual; **m**-/+: monolingual (<7/7+schooling); **U**: urban; **R**: rural

3.3. Data collection procedures

The data comes from 45 hours of interviews conducted with the 32 Haitian speakers mentioned in Table 10. None of these speakers had traveled overseas or were in regular contact with anyone from outside of Haiti at the time of the study. In order to control for the influence of any other languages besides French and Creole, speakers who reported having lived outside of the country for more than a year were excluded from the study. Speakers were recruited through public postings of flyers, phone calls, and recommendations from other participants.

3.3.1 Session 1: Individual interviews

In this session, each speaker was interviewed individually for a period of 60 to 70 minutes. They were asked a series of questions that were divided into thematic modules (Labov 1984; 2001). These modules contain both general questions and questions that were specific to the speaker's personal experiences. Some of the most successful interview questions were those in which speakers spoke about their personal appreciation for good Haitian food (see Appendix (C), #30), their familiarity with Haitian culture, such as proverbs and riddles (see Appendix (A), #28-29) and, for those living in the rural areas, the description of the processes of planting and harvesting (see Appendix (C), #21). In several interviews, these modules unfolded into a narrative from near or past experience.

3.3.2 Session 2: In-pair interviews

Simultaneously occupying two roles as a native speaker and investigator, I was aware that my presence, my appearance, and my behavior might influence patterns of speech among participants in the first session (Labov 1972). In other words, I suspected that participants might make an attempt to use more formal speech patterns than they would in a casual conversation with a peer.

Therefore, the purpose of the in-pair interview is to reduce speaker's self-monitoring behaviors due to unfamiliarity with the investigator and to enhance informal and casual interaction using another peer.

This session lasted 10 to 15 minutes. The pairing strategy was flexible and mostly based on the availability of the two speakers. In some cases, the two speakers were related (i.e. parent-child), friends, acquaintances, or neighbors of any age. Unlike the first session in which I took on the role of an investigator, in this session I adopted the role of a moderator. I invited the two speakers to sit and introduce themselves and then asked a general question to break the ice (Appendix A). I did not assign 'turns' to the speakers in the spirit of observing a naturally unfolding conversation so that cues such as interruptions, speech overlapping, repetition, repair, and any other conversational features could be captured. Such an approach is an effective way to elicit not only data of different levels of formality but also to capture the local variants that are shared by the members of the two speech communities of Carrefour and Béraud.

3.4 Elicitation of the determiner *LA*

3.4.1 Targeted words

The elicitation task included 60 targeted words (see Appendix E). The purpose of this task was to collect data in a controlled manner for the linguistic contexts that might not have been elicited in the guided and in-pair interviews. This list contains words ending in the following syllable structures: an oral consonant followed by a vowel CV (e.g., *di**ri*** 'rice'), a nasal consonant followed by a vowel NV (e.g., *piti**mi*** 'millet'), an oral consonant and an oral vowel followed by an oral consonant CVC (e.g., *ma**kak*** 'monkey'), and a nasal consonant and an oral vowel followed by an oral consonant NVC (e.g., *kli**nik*** 'clinic'). The task involves giving the speakers these target words

incorporated in sentences with the plural form (e.g. *Mwen achte liv yo* 'I bought the books.') and they have to produce the singular forms (e.g. *Mwen achte liv la* 'I bought the book'). In Standard Haitian Creole, plurality is formed with the postposed plural marker *yo* which is invariable. There is allomorphic variation only in the singular form of *LA.* During the administration of the elicitation task, speakers were asked to listen to each of these plural sentences and to change them into the singular form, including the target words. Because the level of education varies across speakers (from college degree to no schooling), the terms "plural" and "singular" were avoided when giving instructions to them. An example of the elicitation task follows:

Table 3.3 Target words

1.	jenou	'knee'	21.	mòp	'mop'	41.	manje	'food'
2.	joumou	'pumpkin'	22.	kannòt	'canoe'	42.	gita	'guitar'
3.	pitimi	'millet'	23.	mèt	'male teacher'	43.	fatra	'litter, trash'
4.	peni	'penny'	24.	grannèg	'rich person'	44.	ba	'sport socks'
5.	zanmi	'friend'	25.	linèt	'glasses'	45.	galata	'attic'
6.	zanno	'earrings'	26.	almanak	'calendar'	46.	kòbya	'hearse'
7.	mo	'word'	27.	nat	'mat'	47.	wout	'road'
8.	lanmò	'death'	28.	nap	'tablecloth'	48.	zandolit	'lizard'
9.	ane	'year'	29.	marinad	'fritter'	49.	woulib	'car ride'
10.	kanè	'report card'	30.	nas	'fishing net'	50.	bourik	'donkey'
11.	kana	'duck'	31.	kalalou	'okra'	51.	kalòt	'slap'
12.	ma	'residue'	32.	mapou	'ceiba trees'	52.	lekòl	'school'
13.	anana	'pineapple'	33.	ri	'street'	53.	wòb	'dress'
14.	sinema	'cinema'	34.	tapi	'mat'	54.	malèt	'suitcase'
15.	egzema	'rashes'	35.	maladi	'disease'	55.	gèp	'bee'
16.	kounouk	'shack'	36.	bòkò	'vodou priest'	56.	makak	'monkey'
17.	mouch	'fly'	37.	kouto	'knife'	57.	taptap	'bus'
18.	klinik	'clinic'	38.	malfektè	'villain'	58.	zak	'crime'
19.	chemiz	'shirt'	39.	boul	'soccer ball'	59.	tab	'table'
20.	tenis	'tennis shoe'	40.	bebe	'baby'	60.	patat	'potato'

(38) Stimuli for direct elicitation of *LA*

Investigator read the instructions in Haitian Creole (English translation provided):

"You will hear 60 sentences. After each sentence you will repeat the same sentence and assume that I am talking about a single item rather than several ones. For instance, if I put

these [show them two pens] on the table. What would you say? [wait for answer] Very good! Now if I remove one, what would you say? [wait for answer] Ok! Very good! So, you will do the same and repeat the same sentence but whenever you hear several items you change it into a single one."

(39) The investigator began reading a sentence containing a word ending in a CVC syllable:

Investigator read:	*Bourik yo pa ka pote chay lou.* donkey Det-pl Neg can carry load heavy 'The donkeys can't carry heavy loads.' (Appendix #50)
Speaker produced:	*Bourik* _____ *pa ka pote chay lou.* donkey Det-pl Neg can carry load heavy 'The donkey can't carry heavy loads.'

(40) Stimuli for direct elicitation of *LA* after a word ending in a CV syllable

Investigator read:	*Pa jwe ak kouto* ***yo***! Neg play with knife Det-pl. 'Don't play with the knives!' (Appendix #37)
Speaker produced:	*Pa jwe ak kouto* _____! Neg play with knife Det-sg. 'Don't play with the knife.'

Each speaker received a short training session varying between two and fifteen minutes, depending on the speaker's ability at following the instructions. Older speakers tended to need more training

3.4.2 Fillers

In addition to the 60 elicitation words, I included 30 filler words in the elicitation task (see Appendix F). I carefully selected filler words ending in nasal segments (e.g. *chen* [ʃɛ̃] 'dog', *kabann* [kabãn] 'bed'). Nasalization in this context is expected to be categorical since words ending in nasal segments do not create a context where variation between nasal and oral allomorphs of the determiner could be possible. I chose these fillers with three goals in mind: (1) to prevent the speakers from guessing the objective of the elicitation task; (2) to reduce self-monitoring; (3) to test whether nasalization of LA is categorical in nasal environments. All the PIE

tasks were recoded with a Sony PCM-D50. This portable device is a 96KHZ/24-bit linear that records in standard .WAV file format and equipped to help minimize unwanted noises.

3.5 Coding procedures for linguistic factors

To account for all the morphophonological contexts where the determiner occurred, I coded for the following linguistic variables.

3.5.1 Syllable structure

Because the determiner *LA* is postposed to the NP, the structure of the final syllables immediately preceding the determiner may play a role in the selection of the oral forms [a] and [la] (henceforth *LA*) and the nasal forms [ã], [lã] and [nã] (or *LÃ*). Below, in Table 3.4, is a presentation of 14 syllable structures which constitute the contexts where *LA* occurred in the data. The table contains both nasal and non-nasal contexts because it was necessary to account for all instances of *LA* first even though the main focus of the study concerns non-nasal contexts.

Table 3.4 Syllabic contexts where *LA* occurs in the Data

Syllable structures	**Example**	**Token**	**Gloss**	**Speaker**
CV	[la**ri**]	la**ri** a	the street	MJUm11
NV	[ʃi**mi**]	chi**mi** an	the chemistry	FJRb17
CVC	[le**kɔl**]	le**kòl** la	the school	MJRb26
NVC	[**nɛg**]	**nèg** la	the man	FJRm19
CVN	**[lam]**	**lam** nan	the breadfruit	MSUm15
CṼ	[ko**ʃɔ̃**]	ko**chon** an	the pig	FSRb22
CṼC	[ma**tãt**]	ma**tant** lan	the aunt'	FJUb2
NṼ	[egza**mɛ̃**]	egza**men** an	the exam	MJRm27
NVN	**[mɔn]**	**mòn** nan	the mountain	FJUb1
CṼN	[ma**dãm**]	ma**danm** nan	the lady/wife	MJUm12
NṼN	[bã**nãn**]	ban**nannn** nan	the plaintain	MJRm28
NṼC	**[mãʃ]**	**manch** lan	the sleeve	FJRm19
ṼC	[**ɔ̃k**]	**onk** lan	the uncle	MSUb13
VC	**[ɛd]**	**èd** la	the help/aid	MSUm15

It is also worth noting that although VC syllables are relatively rare in HC (e.g. *èd* [ɛd] 'help', *ak* [ak] *maryaj* 'marriage certificate') because of HC's preference for onsets (e.g. Fr. *âme* [am] 'soul' which becomes HC *nanm* [nãm], and Fr. *étoile* [etwal] 'star' which becomes HC *zetwal* [zetwal]), there were a few present in the data. However, the rarest of all the syllable structures was: ṼC where *onk* [ɔ̃k] 'uncle' co-varies with the basilectal forms [tɔ̃tɔ̃] and [mɔ̃nɔ̃k]. There were 2 occurrences of *LA* after VC and 3 after ṼC, one of which was nasalized (*onk lan* [ɔ̃k] 'the uncle'). Although these syllable structures can still be found in the speech of some bilingual Haitians, I exclude them from the analysis because there were so few of them.

Table 3.5 is an illustration of the procedures used for the extraction of the syllable structures. The syllable that immediately preceded the determiner was selected as the syllabic context for the determiner *LA*, and consonants clusters containing either an obstruent or a sonorant followed by a liquid or a glide were coded as a single consonant. For example, in Table (3.5h) below the word *bru* 'noise' was coded as a CV syllable, while the first-person pronoun *mwen* [mw**ɛ̃**] was coded as NṼ. This decision was made because the presence and/or absence of the liquid and the glide does not affect the form of the determiner (e.g. *pa a* [pa:] 'the step' vs. *pwa a* [pwa:] 'the bean'; *plat la* [platla] 'the plate' vs. *pat la* [patla] 'the dough'; *nwa a* [mwa:] 'the month' vs. *ma a* [ma:] 'the residue/sediment'). Based on this observation, consonant clusters containing a glide and a liquid such as C(G), C(L), N(G) were coded as simple consonants C and N.

Table 3.5 Illustration of the coding protocol

Example	Word preceding *LA*	Syllable structures
a. *paskeu yo pa konn **peyi an**, yo pa konn kultu **peyi a.***	[pe**ji]**	CV
b. *Son seri deu moun ki t ap fè **bru an** kouri*	[**bry**]	
c. ***Bat la** pa vle di touye*	[**bat**]	CVC
d. ***Bewo a** tou ou gen dwa plantenon bagay,…*	[be**wo**]	CV
e. *Sou **gouvènman Mateli a** vrèman vre…*	[mate**li**]	CV
f. *…pou antre **kòb li a***	[**li**]	CV
g. *Chak bourik bwè dans son **pâturage lan** vle di**…***	[paty**raʒ**]	CVC
h. *Epi m t ale nan **ministèr la***	[minis**tɛr**]	CVC

3.5.2 Height of the preceding vowel

Scholars suspect that the height of the preceding vowel also influences the nasalization of *LA* in non-nasal environments. However, Valdman (2015: 334) noted that there are no extensive empirical studies that could validate such a claim to date. Recent observation (Tézil 2019) has found a strong correlation between vowel height and the use of nasalization of *LA* among Haitian speakers. In the present study I coded for the nucleic vowels according to their height (e.g. high vowel: [pej**i**] ‘country’; mid vowel: [bew**o**] ‘the town of Béraud’; low vowel: [b**a**t] ‘beating’). The same coding procedure applied to all nucleic vowels regardless of the syllable structure, i.e., open syllables (e.g. high: [pej**i**] ‘country’, [zãm**i**] ‘friend’) or closed syllables (e.g. high: [pit**i**t] ‘child’, [klin**i**k] ‘clinic’), as well preceding syllables containing a nucleic nasal vowel (e.g. mid: [p**ɛ̃**] ‘bread’; [m**ɔ̃**t] ‘watch’; low: [b**ã**k] ‘bank).

3.5.3 Backness of the preceding vowel

The nasalization of *LA* following a high back vowel which is itself preceded by a nasal consonant is attested in HC (e.g. *jenou an* 'the knee') (*cf* Dejean 1980, Valdman 1991). Because of the presence of the nasal consonant and the fact that nasalization also occurs with high front vowels (e.g. *jenou* [ʒenu] 'knee', *pititimi* [pititmi] 'millet'), it is difficult to examine the influence of backness in this context. However, in non-nasal contexts (e.g. CV, CVC), this variable was coded for three tongue positions: [-back] to account for front vowels such as [i], [e], [ɛ] (e.g. *diri* [di**i**] 'rice', *bebe* [beb**e**] 'baby', *lèt* [l**ɛ**t] 'milk'), central for the vowel [a] such as in *papa* [papa] 'father', and [+back] for [o], [ɔ] and [u] (e.g. *moto* [mot**o**] 'motorcycle', *koridò* [korid**ɔ**] 'hallway', *kalalou* [kalal**u**] 'okra' as [+back]. Nasal vowels were treated similarly to their oral counterparts; that is, [ɔ] and [ɔ̃] were coded as [+back], [ɛ] and [ɛ̃] were coded as [-back], and [a] and [ã] as central.

3.5.4 Frenchfied HC or *Kreyòl swa*

According to Fattier (1984), the term *Kreyòl swa* refers to the HC variety spoken by the bilingual Haitians, as opposed to *Kreyòl rèk*, the variety spoken by rural and lower class monolingual Haitians. Some of the phonological features that characterize *Kreyòl swa* include the use of the French rounded vowels /œ/, /ø/, and /y/ instead of their unrounded counterparts (Schieffelin & Doucet 1994). However, there is no orthographic representation for the front rounded vowels in HC, and because the official HC spelling does not provide for the representation of these front rounded vowels Valdman (2015: 72) proposes the use of *èu* for /œ/ *bèu/bè* 'butter, *eu* for /ø/: *keu/ke* 'tail', and *u* for /y/: suk/sik 'sugar'. Given that both front rounded and unrounded variants occur with *LA (*e.g. *kèu a* for *kè a* 'the heart'), I propose to test whether the presence of vowel rounding favors the nasalization of the postposed determiner *LA*.

Frenchification is treated as a binary variable that takes two main values: Frenchified and non-Frenchified features. The Frenchified features involve four variants: (1) instances of front rounding vowels (e.g. [br**y]** 'noise'), (2) the presence of post-vocalic [r] (e.g. [minis**tɛr**] 'ministry'), (3) cases where both variants (1) and (2) co-occur (e.g**.** *direkt**èur*** [direkt**œr]** 'director'**),** and (4) instances of set phrases known as "*phrase toute faite*" which include proverbs and popular expressions borrowed from French (1g).[7] It is worth noting that the purpose of this variable is mainly correlational and not causal; that is, I aim to explore the relationship between the variable and the use of *LÃ* in non-nasal environments. Unlike the other variables, the Frenchified features were extended beyond the syllable preceding *LA* to any position in the NP so that I could account for cases that occurred not just in the ultimate syllable (e.g. *bru* [**bry**]~ *bri*[**bri**] 'noise) but also to those that occurred in the penult (e.g. [**dy**ri] ~ [**di**ri] 'rice' and ***par**don* [**par**dɔ̃] ~ ***pa**don* [**pa**dɔ̃]. Non-Frenchified variants included instances that did not involve any of the four cases outlined above. For instance, the word *ministèr* 'ministry' was coded as Frenchified whenever the variant was realized with a post-vocalic [r] (e.g. [minis**tɛr**]), and as non-Frenchified when the variant was realized without a post-vocalic [r] (e.g. [ministɛ]). Likewise, the words for 'rice' and 'butter' were coded as Frenchified if the front rounded vowels were present (e.g. *d**u**ri* [d**y**ri] and *b**èu*** [bœ]) and non-Frenchified if there was no lip rounding in the production of the front vowels (e.g. *d**i**ri* [d**i**ri] and *b**è*** [bè]). This variable was only analyzed for the individual and pair interviews because its variants usually occur during spontaneous speech. There was no effective way to elicit Frenchified features in the data elicitation without complicating the task. For this reason, the variable was excluded from the data elicitation analysis.

[7] Because the syntactic features of *Kreyòl swa* is not the concern of this study, the complentizer ke/keu has been excluded from the analysis.

3.6 Coding protocol for social factors

Social factors included speakers' gender, age, location, occupation, years of schooling and bilingualism. The 32 participants were equally divided by gender (16 males,16 females), age range (16 juniors (18-25 years old) and 16 seniors (40-60 years old)), and location (16 rural residents, 16 urban residents). Occupation was coded binarily for non-manual and manual laborers. The non-manual laborers were comprised of businesspersons, teachers, and students while the group of manual laborers was composed of those who work as custodians, construction workers, maids, farmers, and vendors. Similarly, participants' education level was coded binarily as "below average" if the respondent's years of schooling is below the sample average (less than 7 years), and "average or higher" if the respondent has average or higher than average years of education (7 or greater).

As discussed earlier, this study does not assume that schooling constitutes a direct indicator of proficiency in French, and hence constitutes a proxy for bilingualism. Instead, I administered a French proficiency test to more accurately and directly measure speakers' bilingualism. The participants who passed the proficiency test with a score of 7 and higher were coded as bilingual while those whose scores were lower than 7 were coded as non-bilingual (or monolingual). However, in the course of the analysis, I combined both speaker's years of schooling and level of bilingualism to account for a third group of speakers, specifically those who had average or higher years of education but lower proficiency in French. Altogether, there were three groups: (1) bilingual speakers with average or higher years of schooling (7+) (henceforth BilingE+), (2) monolingual speakers with average or higher years of schooling (≥7) or MonoE+, and (3) monolingual speakers with lower than average years of schooling (<7) or MonoE-. Because none

of the 32 speakers fell into the category of bilingual speakers with lower than average years of schooling (<7), this category was excluded from the analysis.

3.7 Conclusion

In this chapter I have provided a detailed description of my methodology, particularly speaker selection methods and measurements. I described the collection of data, which include interviews and direct elicitation of the variables (plural > singular). I took four factors into account when describing speakers' social profile, including: age, sex, geographical location, and years of schooling and bilingualism. Categorizing speakers on the basis of age, sex, and geographic location was a relatively easy task. However, distinguishing between bilingual and monolingual speakers was a much more complex endeavor. To accurately classify speakers, I included measures for speaker's level of schooling and proficiency in French. Measuring participants' level of education schooling was relatively straightforward. Proficiency, however, necessitated establishing based on certain criteria. To do so, I designed a French test rubric to distinguish speakers who are proficient in French from those who are not. Finally, I discussed the linguistic variables that may influence the use of nasalization, specifically the structure of the preceding syllable, the height of the preceding vowel, the backness of the preceding vowel, and the presence of rounded vowels in the preceding syllable. The protocol for the data collection included individual and pair interviews, data elicitation, and a French proficiency test. The data has been analyzed using multi-level logistic regression Stata in order to determine the linguistic and social factors that influence the nasalization of *LA* in non-nasal environments.

Chapter IV: Analysis and Results

4.0 Introduction

This chapter provides the analysis and the results of the data collected using the protocol described in Chapter III. It is divided into five sections. Section 4.1 includes samples illustrating the use of the determiner *LA*. In section 4.2, I present separate results and interpretations for speakers' interviews conducted in pair (P), individually (I) and data elicitation (E), which I refer to as PIE. In section 4.3 I provide an interpretation for the overall results of the PIE data. The last two sections include a discussion of the findings (section 4.4) and the conclusion of this chapter (section 4.5).

4.1 Analysis

4.1.1 Elicitation of the postposed determiner *LA*

A total of 45 hours of recording including 37 hours of individual interviews and 8 hours of pair interviews were transcribed. A total of 7,182 instances of a determiner *LA* were extracted from the PIE transcriptions, 37% of which were nasalized. I included in my analyses only cases in which the determiner modifies an NP, which can be a noun (41a), a nominalized verb (41b), the name of a city/town, (41c) a referent (1d), a possessive NP (e), an NP that contains a relative clause (41f), or a code-switched expression or a popular saying (41g).

(41) a. *paskeu yo pa konn* ***peyi an****, yo pa konn kultu* ***peyi a.*** (FJUb1)
because 3pl NEG know country DET 3pl NEG know culture country DET
'Because they don't know the country, the don't know the culture of the country'

b. **Bat la** pa vle di touye. (MJUb9)
Beat DET NEG want say kill
'(the/this) Beating/whooping doesn't mean killing.

c. **Bewo a** tou ou gen dwa plante on bagay,… (MJRm28)
Béraud DET also 2sg MODAL plant Indef thing
"(in the town of) Béraud as well you may plant something…"

d. *Sou* ***gouvènman Mateli a*** *vrèman vre…* (FSUm8)
Under government Martelly DET really true
"Under the administration of Martelly certainly…"

e. *pou antre* ***kòb li a*** (FSUb6)
for enter money 3sg DET
'to get her money (spent) back.

f. **pwofesè k te konn fè l pou mwen an**…li la toujou (MSRb29)
teacher REL PAST use do 3sg for 1sg DET 3sg there still
'The teacher who used to do it (or teach) for me…he's still around'

g. "***Chak bourik bwè dans son pâturage*****" lan** vle di… (FJRb17)
"Each donkey drink PREP POSS pasture" DET want say
'(the proverb) every donkey drinks in its pasture means…'

Ambiguous instances of *LA* in sentential constructions, as well as those containing locatives and adverbial constructions such as *jodi a* 'today', *kounye a* 'now', *anwo a* 'up there', *anba a* 'down there' were excluded from the analysis.

4.2. Results and Interpretation

4.2.1 Nasalization of *LA* in nasal and non-nasal contexts

The data were analyzed through Stata, a statistical software that is increasingly used to conduct quantitative analyses of data in the social and behavioral sciences. The PIE results are presented in Table 4.1. The nasalization of *LA* occurs with frequencies of 47%, 41%, and 24% respectively. Even though the frequency of nasalization for the pair interviews is the highest (47%) across PIE, the results for the individual interviews are more crucial because the data set is much bigger.

Table 4.1 Nasalization of *LA* during Pair Interviews (P), Individual Interviews (I) and Data Elicitation (E) for Nasal and Non-nasal Contexts

Dependent variable	Task	Tokens count	Total	Frequency
Nasal	P	519	1,115	47%
	I	1,698	4,147	41%
	E	462	1,920	24%

The rate of nasal variants was then broken down by syllable structure (Table 4.2) which are grouped into two main linguistic environments: nasal and non-nasal contexts. Syllable structures that were not elicited in the data are indicated with a (-).The results show that the average rates of *LÃ* are considerably lower for the non-nasal contexts (i.e. CV, VC, CVC) even though the nasalization of the determiner did occur (PIE = 10%, 12%, and 9% for CV, and 17%, 12%, 14% for CVC, respectively). *LÃ* occurred with CV and CVC in all the tasks (i.e. PIE). However, I cannot speak for the nasalization of *LA* with either VC or ṼC syllables because they were both rare occurrences in the data. There were two instances of *LA* with VC, and three occurrences of *LA* with ṼC, one of which was nasalized. Given that these numbers were so negligible and that the data for these two syllable structures did not constitute at least 5% of the data, which would make them statistically analyzable, these two contexts (i.e. ṼC or VC) were excluded from the analysis.

Table 4.2. Average Rates of Nasalization of *LA* by Syllable Structure during Pair Interviews (P), Individual Interviews (I) and Data Elicitation (E)

Linguistic Environments	Syllable structure	P	I	E
Non-nasal Contexts	VC	-	-	-
	CV	10%	12%	9%
	CVC	17%	12%	14%
Nasal Contexts	NV	42%	52%	39%
	NVC	13%	36%	34%
	CVN	97%	97%	-
	CṼ	100%	99%	-
	CṼC	93%	92%	-
	NṼ	100%	100%	-
	NVN	99%	99%	-
	CṼN	100%	98%	-
	NṼN	-	100%	-
	NṼC	100%	90%	-
	ṼC	-	33%	-

It is not surprising that *LA* was nasalized nearly categorically in nasal contexts (e.g. NVN, CVN, NṼN). The results support the claim that *LA* is nasalized progressively when preceded by a nasal context (e.g. Cadely 1994; Valdman 2015). However, they also show that *LÃ* does not occur at the same rate in every nasal context. For instance, the rate of nasalization dropped in NV and NVC syllables, which is presumably a result of variation between *LA* and *LÃ*. *LA* co-varies with *LÃ* when preceded by NV if the nucleic vowel is mid (e.g. [a**ne** ã/a] 'the year'). But if the nucleic vowel is [+high], *LÃ* is favored categorically (e.g. [ʒe**nu ã**] 'the knee'); and if the nucleic vowel is [+low], *LA* is favored categorically (e.g. [ana**na a**] 'the pineapple'). With respect to NVC, variation between *LA* and *LÃ* occurred with all vowel heights (i.e. mid, high, and low).

4.2.2 Nasalization of *LA* in non-nasal contexts

The analysis was run once again, this time for only CV and CVC syllables, in order to examine the extent to which nasalization has spread to non-nasal contexts. Table 4.3 presents the counts for all nasal variants of the determiner that occurred in CV and CVC during PIE. Note that because these syllables constituted non-nasal environments, the only variants that occurred in these contexts were [a] and [la] for *LA* and [ã] and [lã] for *LÃ*. The variant [nã], which occurred only in nasal contexts, was no longer relevant and was excluded. As the preliminary results show, there is no significant difference in the frequency of nasalization across PIE: 12% across all three tasks. This suggests that this change may be extending to different situational contexts (formal and informal speech) at a similar rate.

Table 4.3. Nasalization of *LA* in Non-nasal contexts during Pair Interviews (P), Individual Interviews (I) and Data Elicitation (E)

Dependent variables	Task	Tokens count	Total	Frequency
Nasal	P	73	597	12%
	I	303	2,575	12%
	E	112	960	12%

However, one should be cautious and not immediately assume that the absence of a difference in the frequency rates for *LÃ* across PIE suggests that there is no effect of stylistic variation on the nasalization of the determiner. For some speakers, the task (PIE) may have significantly influenced *LÃ* in non-nasal contexts, while for others, the task may not matter. Consequently, it is important to determine which speaker's social group and which linguistic variables that influence nasalization in the determiner *LA*. The sociolinguistic results are presented separately for PIE in the next sections.

4.2.3 Sociolinguistic factors affecting *LÃ* in the pair interviews

The results for average rates of *LÃ* in non-nasal contexts (i.e. CV+CVC) during the pair interviews are reported in Table 4.4. The following codes indicate whether the difference between the two factors is significant. When these codes do not figure in the tables, this means that there is no significant difference between those pairs.

Codes referring to significant differences between specific pairs of factors

Bilingualism and Schooling: a significant difference ($p<0.05$) is indicated by:

a= (BilingE+) v. (MonoE+)
b= (BilingE+) v. (MonoE-)
c= (MonoE+) v. (MonoE-)

Vowel height significant difference ($p<0.05$) is indicated by

d= Low v. Mid
e= Low v. High
f=Mid v. High

Backness significant difference ($p<0.05$) is indicated by

g= [-back] v [+back]
h= [-back] v. Central
i=[+back] v. Central

The sociolinguistic factors that are significant include gender, geographical location, level of bilingualism and years of schooling, Frenchified features, syllable structure, and vowel height, as indicated by the superscripts #, *ac* and *f*. For instance, women nasalized significantly more on average than men, and urban speakers nasalized significantly more than rural speakers. With respect to the combined effects of speaker's education and bilingualism, the results revealed two significant differences. The MonoE+ group nasalized significantly more than the BilingE+ and the MonoE- group, but there was no difference between MonoE- and the BilingE+, as well as between speakers' of different ages and occupations.

Table 4.4. Average Rate Differences in Nasalization in Non-nasal Contexts during Pair Interviews by Linguistic and Social Factors (N=597)

Social Factors			
Gender	**Male**	**Female**	
	8%	20%[#]	
	(28/367)	(45/226)	
Age	**Junior**	**Senior**	
	14%	10%	
	(43/307)	(30/286)	
Location	**Rural**	**Urban**	
	3%	17%[#]	
	(5/199)	(68/394)	
Occupation	**Non-manual Laborer**	**Manual Laborer**	
	14%	11%	
	(40/287)	(33/306)	
Bilingualism & Years of Schooling	**BilingE+**	**MonoE+**	**MonoE-**
	7%	30%	11%[ac]
	(16/245)	(29/98)	(28/250)
Linguistic Factors			
Frenchified	**Yes**	**No**	
	22%	12%[#]	
	(11/50)	(62/543)	
Syllable Structure	**CV**	**CVC**	
	9%	16%[#]	
	(28/306)	(45/287)	
Vowel Height	**Low**	**Mid**	**High**
	12%	7%	19%[f]
	(12/97)	(18/275)	(43/221)
Backness	**[-back]**	**[+back]**	**Central**
	12%	12%	12%
	(45/367)	(16/129)	(12/97)

Sociolinguistic factors significant difference: (#), (ac), (f) at $p<0.05$

Regarding the effect of linguistic factors, there were three variables that had significant effects on the nasalization of the determiner: Frenchified features, syllable structure and vowel height. On average *LÃ* appeared more often in non-nasal contexts with Frenchified features (22%) than non-Frenchified features (12%). *LÃ* also occurred significantly more when preceded by a CVC syllable (16%) than a CV syllable (9%). Finally, *LÃ* had the highest frequency rate with high vowels (19%). However, as indicated by the superscript (f), only the difference between high and mid vowels is significant. Backness is the only linguistic variable that showed no significant differences the nasalization of the determiner.

The results provided on Table 4.4 come from a bivariate analysis of the average rate of nasalization according to social and linguistic characteristics. That means there are two related variables (dependent and independent) that are simply based on group averages for nasalization in non-nasal contexts. However, bivariate results do not consider speakers' other sociolinguistic factors simultaneously during the speaker's performance. To accurately account for speaker's competence in relation to all measured social and linguistic characteristics, I use Stata's multi-level modeling, specifically a multi-level logistic regression which estimates the relationship between one independent variable and the dependent variable while accounting for the other independent variables and holding them constant. The estimates that the model provides are known as odds ratios. Odds ratios estimate the relative chance of an event of interest happening, which in this case is the relative chance of nasalizing in a non-nasal environment. An odds ratio estimate of less than one means that group A nasalizes less than participants in group B, and an odds ratio of more than one indicates that participants in group A nasalize more than participants in group B.

4.2.4 Interpreting the Odds Ratios in the Full Model: A second look at the results

A key feature of multi-level modeling is that it produces an intra-class correlation coefficient (ICC) which can partition, or differentiate between, the variation that occurs between levels which in this case is within and between speakers. As seen in Table 4.5, in the Empty Model, the ICC indicates that 0.46 or 46% of the variation in nasalization in non-nasal contexts is between respondents while the remaining rate (54%) is within respondent's speech patterns. When all the sociolinguistic factors are considered in the Full Model, the 46% is reduced to 0.18 or 18%. If I take the difference, (i.e. 46% - 18%) and divide it by 46, the results indicate that the sociolinguistic factors explain 61% of the variation that occurs between speakers during the pair interviews. Finally, regression results are always interpreted in comparison to their other variants in logistic regression. For instance, for gender (men & women), the model uses one variant (which can be men or women) as a comparison. The results show that women have 3.93 times higher odds of nasalizing the determiner than men. Regarding speakers' occupation, the manual laborers have about 0.07 times lower odds of nasalizing *LA* in non-nasal environments as compared to non-manual speakers. Other social factors that are significantly associated with the nasalization of the determiner include speaker's geographic location, occupation, and their levels of bilingualism and schooling. For example, urban speakers have 6.72 times higher odds of using *LÃ* in non-nasal contexts than rural speakers. MonoE+ speakers have significantly higher odds (14.68) of nasalizing *LA* in non-nasal environments as compared to BilingE+ speakers. Although the junior group and the MonoE- group each have an odds ratio that is greater than 1, the differences in their use of nasalization as compared to seniors and BilingE+ speakers, respectively, are not significant. What this means is that although some groups may exhibit a positive trend toward the nasalization of *LA* in non-nasal

environments, after taking all the social and linguistic factors into account, the results show no significant differences.

Table 4.5 Multi-level Logistic Regression Odds Ratios Predicting Nasalization in Non-nasal Contexts during Pair Interviews

	Empty Model	Full Model
Gender		
Women		3.93#
Age		
Juniors		1.26
Location		
Urban		6.72#
Occupation		
Manual Laborers		0.07#
Bilingualism & Years of Schooling		
MonoE-		14.24
MonoE+		14.68#
Frenchification		
Frenchified		3.49#
Syllable Structure		
CVC		1.93
Vowel Height		
Low		0.19#
Mid		0.11#
Backness		
[-back]		0.98
[+back]		Omitted due to collinearity
ICC	0.46	0.18

The predictions made by the regression model in Table 4.5 are not contradictory to the bivariate results in Table 4.4. The regression-based models capture very efficiently the tendency of certain speaker groups to use *LÃ* more frequently than others while simultaneously considering other social and linguistic factors. This means that differences in nasalization that are significant between groups in the bivariate results may or may not be significant in the regression-based models. This is explained presumably by the fact that every speaker has multiple social categories (e.g. age, gender, education, parenting, location, marital status) and is operating within varying linguistic contexts which may influence their speech in one direction or the other. For instance, speaker X may use *LÃ* more frequently than men because X is a female but not to the same extent as the other women (particularly the juniors) because speaker X is also a rural bilingual speaker. Furthermore, certain speakers might produce more words containing linguistic contexts favorable to nasalization (e.g. high vowels) than other members of other social groups. That is the advantage of having a model that accounts for multiple social and linguistic factors at once, while showing the amount of variance in the dependent variable due to variation between versus within and between speakers.

Frenchified features and vowel height are highly favorable to the nasalization of *LA* in non-nasal contexts. The odds that *LÃ* occurs in NPs containing a Frenchified feature is 3.49 times higher than the odds that it will occur in a non-Frenchified one. Moreover, as compared to high vowels, both mid vowels and low vowels have a lower odds of appearing with *LÃ* in non-nasal contexts. This suggests that *LÃ* is more likely to occur with high vowels. In the case of [+back], it is an exact linear combination of other independent variables in this model, resulting in multi-collinearity and the inability to produce accurate predictions for this variable. In other words, collinearity in this analysis indicates that [+back] and other variables (e.g. vowel height) are too

intertwined, which means that each cannot independently predict nasalization (e.g. [u]: [+back] and [+high]; [a]: [+central] and [+low]). Let's say the low vowel [a] is not favorable to nasalization of the determiner in CV syllables as compared to high vowels (e.g. [papa a]/ not [papa ã] 'the father' vs [diri(j)a/ã] 'the rice'); this also implies that the central vowel is unfavorable to the nasalization of the determiner, because [a] is both low and central. Besides, there is only a single vowel, namely [a], in this category. Therefore, one of the most effective ways to examine the correlation between backness and the use of *LÃ* is to look at the results from a cross-tabulation table such as that in 4.6.

Table 4.6. Average Rates of Nasalization of *LA* during Pair Interviews

	Syllable Structures	Vowel Height	Backness	Oral	Nasal	Average Rate (Std)	Frequency
Pair interviews	CV	High	[+back]	11	1	8% (0.29)	12
			[-back]	91	21	19% (0.39)	112
		Mid	[+back]	27	1	4% (0.19)	28
			[-back]	129	5	4% (0.19)	134
		Low	Central	22	0	0% (0)	22
	CVC	High	[+back]	19	9	32% (0.48)	28
			[-back]	59	12	17% (0.38)	71
		Mid	[+back]	56	5	8% (0.28)	61
			[-back]	46	7	13% (0.34)	53
		Low	Central	64	12	16% (0.37)	76
		Total		**524**	**73**	**12%**	**597**

The results reveal two main issues concerning backness. First, the highest percentages of nasalization occur with high vowels in CVC syllables. Therefore, it is difficult to determine whether backness has a direct effect on the use of *LÃ,* as the effect of the variable could also be

explained by the differences of syllable structure. In addition, *LÃ* never occurs with the low central vowel [a] in CV syllables (0%) but does occur in CVC (16%). Presumably, the model was unable to determine whether the nasalization of *LA* was influenced by either the backness of [a] or its height. This may explain why the regression model has identified collinearity for this variable. Moreover, in CV syllables, more nasalization occurs with front than back vowels, whereas in CVC syllables, there is more nasalization with back than front vowels. This indicates an interaction which may also play a role and explain part of the collinearity.

When taking into account all sociolinguistic factors in the pair interviews, there are four social factors and two linguistic factors that constitute significant sociolinguistic predictors of nasalization of *LA* in non-nasal contexts: gender, location, occupation, and bilingualism and years of schooling, as well as Frenchified features and vowel height. In section 4.2.5 the results for the individual interviews are provided, discussed and then compared with those of the pair interviews in order to determine whether the task influences speakers' use of *LÃ* in addition to the sociolinguistic variables.

4.2.5 Sociolinguistic factors influencing the use of *LÃ* during the individual interviews

As shown in Table 4.7, every social factor group in the individual interviews shows significant differences. The average rate of nasalization for women is higher than that of men. Younger and urban speakers nasalized more than their older and rural peers, respectively. Non-manual laborers nasalized more than the manual laborers. Once again, the MonoE+ speakers nasalized more than their peers.

Table 4.7. Average Rate Differences of Nasalization of *LA* in Non-nasal Contexts during Individual Interviews by Linguistic and Social Factors (N=2,575)

Social Factors			
Gender	**Men**	**Women**	
	6%	18%[#]	
	(82/1,369)	(221/1,206)	
Age	**Junior**	**Senior**	
	17%	5%[#]	
	(244/1,418)	(59/1,157)	
Location	**Rural**	**Urban**	
	7%	14%[#]	
	(57/870)	(246/1,705)	
Occupation	**Non-manual Laborer**	**Manual Laborer**	
	15%	5%[#]	
	(255/1,656)	(48/919)	
Bilingual & Years of Schooling	**BilingE+**	**MonoE+**	**MonoE-**
	12%	37%	5%[abc]
	(170/1,464)	(85/231)	(48/880)
Linguistic Factors			
Frenchified	**Yes**	**No**	
	27%	11%[#]	
	(39/142)	(264/2,433)	
Syllable Structure	**CV**	**CVC**	
	12%	12%	
	(149/1,284)	(154/1,291)	
Vowel Height	**Low**	**Mid**	**High**
	9%	9%	19%[ef]
	(37/429)	(117/1,374)	(149/772)
Backness	**[-back]**	**[+back]**	**Central**
	13%	11%	9%[g]
	(207/1,603)	(59/543)	(37/429)

Sociolinguistic factors significant difference (#), (abc), (efg) $p<0.05$

Apart from syllable structures (CV and CVC: 12%), all the linguistic factors show significant differences. For example, *LÃ* occurs more frequently in Frenchified feature in the NPs

(27%) than non-Frenchified ones (11%), and the difference between the two variants is significant. Additionally, the nasalization of the determiner occurs most often with high vowels, as suggested by the superscripts *ef*; that is, *e* indicates that the difference between low and high vowels is significant, while *f* indicates that the difference between mid and high vowels is significant. Regarding the effect of backness, this time the results show that nasalization occurs significantly more frequently with front vowels than back vowels, as indicated by the superscript *g*.

A second look at the results leads me to the interpretation of the odds ratios once again. As seen in Table 4.8 below, the ICC of 0.30 suggests that 30% of the variation in nasalization in non-nasal contexts occurs between respondents, while the remaining 70% occurs within respondents' speech patterns. When all the sociolinguistic factors are considered in the Full Model, the 30% variation between speakers is reduced to 0.13 or 13%. If the difference (i.e. 30% - 17%) is divided by 30, one can conclude that the sociolinguistic factors of the Full Model explain 57% of the variation that occurs between speakers in the individual interviews. When all sociolinguistic factors are considered, gender, age and bilingualism & years of schooling constitute the social factors that are highly favorable to the nasalization of the determiner in non-nasal contexts for the individual interviews. For example, women have 2.36 times higher odds of nasalizing *LA* in non-nasal contexts, as compared to men, and the difference between the two groups is statistically significant. Similarly, the juniors (2.30) and the MonoE+ speakers (6.18) have significantly higher odds of nasalizing the determiner in non-nasal contexts as compared to their senior and BilingE+ peers, respectively.

Table 4.8. Multi-level Logistic Regression Odds Ratios Predicting Nasalization in Non-nasal Contexts during Individual Interviews (N=2,525)

	Empty Model	Full Model
Gender		
Women		2.36#
Age		
Juniors		2.30#
Location		
Urban		1.32
Occupation		
Manual Laborers		0.00
Bilingualism & Years of Schooling		
MonoE-		9.14x (10^7)
MonoE+		6.18#
Frenchification		
Frenchified		2.45#
Syllable Structure		
CVC		1.40#
Vowel Height		
Low		0.27#
Mid		0.28#
Backness		
[-back]		0.96
[+back]		Omitted due to collinearity
ICC	0.30	0.13

The results also contain a peculiar odds ratio of 9.14x (10^7) or 91,400,000 for the (MonoE) speaker group. Such a big number may be a result of the small number of occurrences of nasalization among speakers in this group. In total, there were only 46 occurrences of nasalization among 13 MonoE- speakers, which may result in the estimates for this group being unstable or "wobbly" as well as having large standard errors. As such, any interpretation of this number should be considered highly tentative.

As for the effect of linguistic factors, Frenchification, syllable structure, and vowel height are selected as significant predictors. The odds that *LÃ* occurs with a Frenchified feature are significantly higher than a non-Frenchified one, and CVC is a significantly more favorable environment to the nasalization of the determiner than CV. High vowels have higher odds of being used with the nasal variant than both mid and low.

The favorability of CVC syllables for the use of *LÃ* is in accord with my empirical observations, which indicate a vowel height constraint imposed on CV but not on CVC syllables (Tézil 2019). Two strategies are observed when the definite determiner follows a CV-final word, glide insertion and vowel merger, which have consequences for nasalization of the determiner. For example, when the preceding vowel is [-low], a glide may be inserted and re-syllabified with the determiner (e.g. *peyi a* [peji**j**a] 'the country'; *bato a* [bato**w**a]' 'the boat') (see Valdman 1978; Dejean 1980; Klein 2003; Cadely 2003). When the preceding vowel is [+low] such as in *papa* [papa] 'the father', the determiner is still phonetically realized as [a], resulting in both preceding vowel [a] and postposed determiner form [a] being identical. Because of that, they are usually realized as a long [a:] (e.g. ***papa a*** pronounced [pap**a:**] 'the father'). Even though the vowel lengthening is interpreted as the determiner, its fusion with the preceding vowel [a] blocks the nasalization of the definite determiner in this context (i.e. in CV).

So far, based on the results for the individual and pair interviews, there are four sociolinguistic variables that constitute the most robust predictors of nasalization of *LA* in non-nasal environments: gender (i.e. women), bilingualism and years of schooling (i.e. MonoE+) speakers), vowel height (i.e. high vowels) and Frenchified features. This generalization does not exclude the influence of other additional factor groups such as locality, age, and syllable structure. The significance of these variables varies depending on the type of data collection task; that is, whether speakers are being interviewed in pairs or individually.

Variation resulting from being interviewed in pairs versus individually affected speakers' performance. For instance, during the pair interviews, I noticed there was a tendency for some speakers (particularly seniors) to speak first and relatively more if the other speaker was younger. There were situations when the younger speakers were not permitted to speak first, especially during interviews with family members. But at that time, they would agree with each other, rephrase or repeat after each other. Some of them would even yield to one another: "This question is for you, X.", "I agree with everything Y said." So, turn taking and the right to interruption varied depending on age differences, gender, and in many cases on who is perceived as better prepared to answer a particular question. It is through the processes of negotiating turns and through showing support and solidarity that speakers of different social groups (particularly the residents of the same geographical area) bring their speech closer to one another. The average rates of nasalization for rural and urban speakers vary significantly during both pair and individual interviews, whereas speakers' rates of nasalization with age and occupation are not statistically different during the pair interviews but statistically different during the individual interviews. What this suggests is that the difference between speakers' geographical location matters more than other social differences shared within the same geographical location (e.g. occupation and age

differences). But when it comes to speakers' gender and their level of bilingualism and schooling, these two social factors seem to matter considerably for some speakers, regardless of their geographical origin. As an example, both women and MonoE+ speakers nasalized significantly more than their counterparts in both pair and individual interviews. To examine speaker's conscious awareness of the variant and the linguistic contexts that may not have been elicited in the interviews, a data elicitation task was administered for the same speaker groups. The results are presented in the next section.

4.2.6 Sociolinguistic factors influencing nasalization of *LA* during the data elicitation

The results for the data elicitation task (Table 4.9) show a change for gender, as women nasalize significantly less (9%) than men (14%) in non-nasal contexts. These results were unexpected given that women had nasalized significantly more during both pair and individual interviews. Perhaps, it could be due to the fact that the data elicitation task has switched the situational context from less formal to relatively more formal. Another change observed in the results is that, unlike the previous results (i.e. pair and individual interviews), the non-manual laborers nasalize significantly less (8%) than the manual laborers (16%). The MonoE+ speakers' average rate of nasalization increases from 30% to 49% throughout PIE. Finally, juniors and urban speakers nasalize the determiner significantly more than their senior and rural peers, respectively.

Table 4.9. Average Rate Differences in Nasalization in Non-nasal Contexts during Data Elicitation by Linguistic and Social Factors (N=960)

Social Factors			
Gender	**Male**	**Female**	
	14% (67/480)	9%[#] (45/480)	
Age	**Junior**	**Senior**	
	14% (74/480)	8%[#] (38/480)	
Location	**Rural**	**Urban**	
	3% (12/480)	21%[#] (100/480)	
Occupation	**Non-manual Laborer**	**Manual Laborer**	
	8% (44/540)	16%[#] (68/420)	
Bilingual & Years of Schooling	**BilingE+**	**MonoE+**	**MonoE-**
	5% (25/480)	49% (44/90)	11%[abc] (43/390)
Linguistic Factors			
Syllable Structure	**CV**	**CVC**	
	9% (45/480)	14% [#] (67/480)	
Vowel Height	**Low**	**Mid**	**High**
	6% (19/320)	13% (56/448)	19%[def] (37/192)
Backness	**[-back]**	**[+back]**	**Central**
	13% (46/352)	16% (47/288)	6%[hi] (19/320)

Sociolinguistic factors significant difference (#), (abc), (hi) $p<0.05$

All the linguistic variables highly favor the nasalization of the determiner. On average, *LÃ* occurred significantly more with CVC syllable than CV syllables. It is worth noting that there are no results for the variable "Frenchification" for two reasons. First, the task did not intend to elicit them. Second, even if these features were produced by some subjects, they would have to be analyzed in relation to the investigator's speech. That is, the analysis would have to code for the investigator's use of Frenchification as well. To avoid the complexity that would entail, this variable was excluded from this study.

The crosstabulation (Table 4.10) reveals that syllable structure affects low vowels. For example, *LÃ* does not occur when CV syllables contain a low vowel. However, when it is contained in CVC syllables, nasalization occurs at about 12%. I suspect that the prohibition against nasalization with low vowels in CV syllables may be responsible for differences across vowel heights.

To test for statistical significance in the crosstabs I used chi-square tests ($\chi 2$). Because of small cell sizes, I also used Fisher's Exact tests, which are particularly well suited for testing significance among a small number of tokens, to confirm the results of the chi-square tests. After chi-square and Fisher's Exact tests (FE), I conducted a post-hoc Bonferroni tests (B) which allows for pairwise comparisons of statistical significance for categorical variables. I found that nasalization occurs significantly more often among CV-mid than CV-low ($\chi 2$=27.38 p=0.00; FE p=0.00; B p=0.00). Similarly, nasalization occurs significantly more often among CV-high than CV-low ($\chi 2$=27.38 p=0.00; FE p=0.00; B p=0.00). There is no significant difference between CV-mid and CV-high (why no numbers here?), or between CVC structures of different vowel heights ($\chi 2$=4.16 p=0.10; FE p=0.12).

Table 4.10 Nasalization of *LA* by syllable structure and vowel height during data elicitation

	Oral	Nasal	Total	%		Oral	Nasal	Total	%
CV-low	160	0	160	0%	**CVC-low**	141	19	160	12%
CV-mid	250	38	288	13%	**CVC-mid**	142	18	160	11%
CV-high	25	7	32	22%	**CVC-high**	130	30	160	19%
Total	435	45	480	9%	Total	413	67	480	14%

The multi-level results (Table 4.11) show that only speakers' location constitutes a significant social factor affecting nasalization of the determiner during the data elicitation. The likelihood that urban speakers nasalize *LA* in non-nasalized contexts is 5.62 times higher than rural speakers. Regarding the effect of bilingualism and years of schooling, the model finds no significant differences between monolingual and bilingual speakers after considering all the sociolinguistic factors. Even though the MonoE+ trends toward nasalizing more than their peers (as indicated by a positive odds ratio of 7.04), there is no significant difference between this group and bilingual speakers.

Table 4.11 Multi-level Logistic Regression Odds Ratios Predicting Nasalization in Non-nasal Contexts during Elicitation Experiment (N=960)		
	Empty Model	**Full Model**
Gender		
Women		0.87
Age		
Seniors		0.87
Location		
Urban		5.62[#]
Occupation		
Manual Laborers		16.43
Bilingualism & Years of Schooling		
MonoE-		0.10
MonoE+		7.04
Syllable Structure		
CVC		1.75
Vowel Height		
Low		0.10[#]
Mid		0.52
Backness		
[-back]		0.68
[+back]		(omitted due to collinearity)
ICC	0.52	0.33

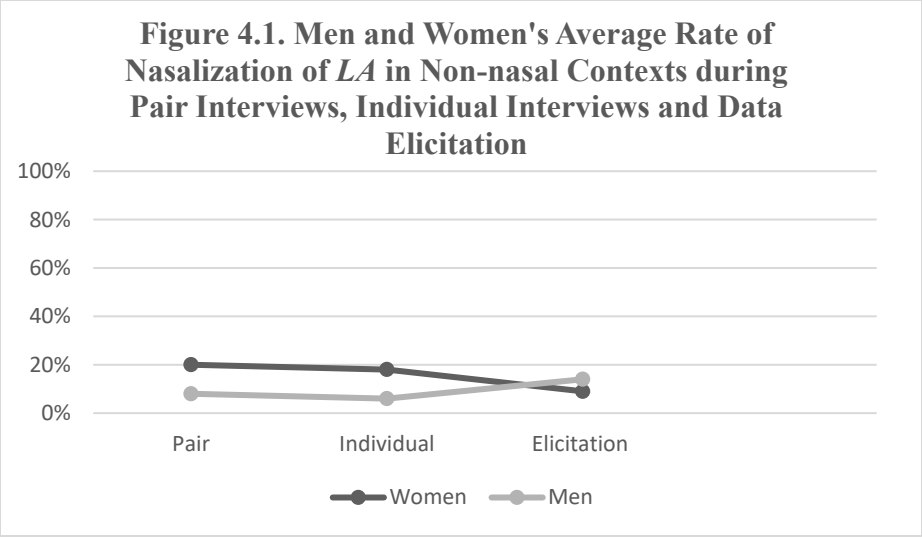
The decrease in the rate of nasalization among women is also confirmed in the model (Table 4.11), considering that their odds ratios is lower than one (0.87). However, there is no significant difference to men. Women and men's linguistic performance is discussed in more detail in the next sections. With respect to linguistic factors, low vowels nasalize significantly less than high vowels, but there is no difference between mid and high vowels. Following the presentation

of all results, my goal in the next sections is to highlight some of the crucial points of the PIE findings and make sense of them.

4.3 Interpretation of the overall results across PIE

4.3.1 Women and men

As presented in Figure 4.1, both women (indicated in black) and men's speech (in gray) exhibited changes in nasalization of the determiner across PIE. For example, women's average rate of nasalization dropped from 20% to less than 9%, while men's average rate of nasalization increased from 8% to about 14%. The switch between men and women in the data elicitation task is surprising given that women have nasalized more on average than men in both pair and individual interviews. There may be more than one plausible explanation for the changes. One possibility is that the respondents' speech patterns were affected by the investigator's gender (i.e. male). Given that all three tasks involved the same male interviewer, the change in the elicitation task cannot be attributed to a different gender configuration. Another plausible explanation is that men and women might have two different linguistic systems. That is, women might have favored the nasalization of the determiner in a particular linguistic context where men disfavored it and vice versa.



To determine whether this was the case, I decided to examine the average rates of occurrences of *LÃ* for women and men in relation to the linguistic environments (e.g. syllable structures, vowel height, Frenchification, and backness).The results from the crosstabulation in Table 4.12 show that the average rates of nasalization of *LA* range from 2% and 20% for men and 14% and 36% for women in the pair interviews. Although women nasalize more frequently than men in all the linguistic contexts, both groups appear to prefer the use of *LÃ* with high vowels and Frenchified features, considering that both variables are among the highest rates of nasalization for each speaker group. One linguistic context where men and women differ is in syllable structure. For example, women nasalize significantly more in CVC syllables than in CV syllables ($\chi 2=7.28$ $p=0.01$; FE $p=0.01$). Men on the other hand are equally likely to nasalize in CV and CVC syllables ($\chi 2=0.12$ $p=0.73$; FE $p=0.84$). This, more than the higher nasalization rate, suggests different linguistic systems.

Table 4.12. The Effect of Linguistic Factors on Nasalization of *LA* between Women and Men during Pair Interviews

Factors	Women	%	Men	%
CV	14/98	14%	14/182	8%
CVC	31/85	36%	14/159	9%
High vowels	22/67	32%	21/113	19%
Mid vowels	14/83	17%	4/175	2%
Low vowels[8]	9/33	27%	3/53	6%
Back	9/37	24%	7/76	9%
Front	27/113	24%	18/212	8%
Central	9/33	27%	3/53	6%
Frenchified	6/17	35%	5/25	20%
Non-Frenchified	39/166	23%	23/316	7%
Total	45/183	25%	28/341	8%

I now direct my focus to the linguistic factors that are the most important, that is, syllable structure and vowel height in order to determine whether these apparent differences between men and women are real and constitute actual differences. For example, it could be by chance that women spoke more words with high vowels, and this may be responsible for the fact that they have higher nasalization rate than men. However, Table 4.13 shows that this is not the case, as the distribution of vowel heights and syllable structures is very stable across the two genders (e.g., high vowels represent 39.8% of the CV syllables for women and 34.6% for men).

The results for the pair interviews (Table 4.13) show that the nasalization of the determiner *LA* is relatively similar between men and women. For example, in CV and CVC syllables, they both nasalize more with high vowels and do not nasalize with low vowel in CV syllables. In CVC syllables, both speaker groups nasalize with the low vowel. Regarding the differences between the two speaker groups, for women there is no significant difference in CV or CVC syllable structures by vowel height (CV: $\chi 2=5.37$ p=0.07; FE p=0.09; CVC: $\chi 2=0.49$ p=0.78; FE p=0.81). For men the only significant difference in CV and CVC syllable structures by vowel height is between mid

[8] Low and central refer to the same [a], which is an example of collinearity.

and high vowels (CV: $\chi 2=14.42$ p=0.00; FE p=0.00; B= 0.00; CVC: $\chi 2=6.80$ p=0.0.03; FE p=0.0.03; B= 0.03).

Table 4.13. The Effect of Syllable Structures and Vowel Height on the Nasalization of *LA* between Women and Men during the Pair Interviews

		Women				Men			
Syllables	**Vowel Heights**	**Nasal**	**Oral**	**Total**	**% Nasal**	**Nasal**	**Oral**	**Total**	**% Nasal**
CV	High	10	29	39	26	12	51	63	1
	Mid	4	46	50	8	2	104	106	2
	Low	0	9	9	0	0	13	13	0
Total		14	98	112	13	14	168	182	8
CVC	High	12	16	28	43	9	41	50	18
	Mid	10	23	33	30	2	67	69	3
	Low	9	15	24	37	3	37	40	7
Total		31	54	85	36	14	145	159	9

In order to determine whether the similarities and differences discussed above are significant when all the sociolinguistic factors are taken into account, I submitted the data to the multi-level analysis. The results (Table 4.14) show that age is not significant for either gender. However, location constitutes a significant factor for women, whereas it does not for men. Urban women are more likely to nasalize the determiner than their rural peers, while urban and rural men show no significant differences. With respect to the effect of occupation, it is significant for men and not for women. Finally, bilingualism and education are significant for men, and not for women.

Table 4.14. Multi-level Logistic Regression Odds Ratios Predicting Nasalization in Non-nasal Contexts during Pair Interviews		
	Women(N=228)	**Men (N=369)**
Age		
Juniors	1.37	1.47
Location		
Urban	10.58#	3.90
Occupation		
Manual Laborers	0.31	0.05#
Bilingualism & Years of Schooling		
MonoE-	Omitted due to collinearity	23.74#
MonoE+	17.68	16.60#
Frenchification		
Frenchified	3.12	3.91#
Syllable Structure		
CVC	4.51#	0.76
Vowel Height		
Low	0.14#	0.18
Mid	0.09#	0.12#
Backness		
[-back]	1.05	1.09
[+back]	Omitted due to collinearity	Omitted due to collinearity
ICC	0.33	0.00

High vowels are highly favorable to nasalization for both women and men. Another surprising fact revealed by the model is that even though men and women do have a higher frequency of nasalization with Frenchified features, this variable is significant for men (3.91#), but not for women (3.12). As shown earlier in Table 4.12, women have a frequency rate of 35% of nasalization with Frenchified features and 23% with non-Frenchified features, while men's rate is only 20% with Frenchified features and 7% with non-Frenchified features. So, their rates are very

different. What the numbers in Table 4.14 show is that both Frenchification favors nasalization in both genders, but that the effect is significant only for men. With respect to syllable structures, CVC syllable syllables have a significant effect for women and not for men. The numbers in 4.13 strongly supports this conclusion. That is, there is a large increase for nasalization for all three vowel heights for women, but none for men.

For the individual interviews (Table 4.15), the average rates of *LÃ* range from 2% to 17% for men and 17% to 52% for women. High vowels and Frenchified features are favorable environments for nasalization among both genders. However, there is no significant effect of syllable structure for either of the two speaker groups (Women: $\chi 2=0.06$ p=0.81; FE p=0.82; Men: $\chi 2=0.11$ p=0.74; FE p=0.82). Also, there is minimal effect of backness. The only significant effect of backness occurs among men between central and front ($\chi 2=8.63$ p=0.01; FE p=0.01; B p=0.02). Overall, women consistently have higher frequency rate of nasalization than men in CV and CVC syllables (22% in CV and 23% in CVC for women vs 6% in CV and 7% in CVC for men).

Table 4.15. The Effect of Linguistic Factors on Nasalization of *LA* between Men and Women during the Individual Interview

Factors	**Women**	**%**	**Men**	**%**
CV	110/499	22%	39/636	6%
CVC	111/486	23%	43/651	7%
High vowels	96/281	34%	53/342	15%
Mid vowels	94/543	17%	23/714	3%
Low vowels	31/161	19%	6/231	3%
Back	43/176	24%	16/308	5%
Front	147/648	23%	60/748	8%
Central	31/161	19%	6/231	2%
Frenchified	32/61	52%	7/42	17%
Non-Frenchified	189/924	20%	75/1,245	6%
Total	221/985	22%	82/1,287	6%

A closer look at the effect of syllable structures and vowel height (Table 4.16) reveals that men and women also share a similar distribution in their use of nasalization. Although women

have a higher rate of nasalization than men, both groups nasalize more with high vowels in CV and CVC syllables. Neither of the two speaker groups nasalize the determiner when CV contain the low vowel [a]. Regarding their differences, women nasalize significantly more in CV-high than CV-mid ($\chi2$=7.50 p=0.02; FE p=0.02; B p=0.044) and significantly more in CVC-high than in CVC-low or CVC-mid ($\chi2$=15.99 p=0.00; FE p=0.00; B p=0.01 and p=0.00, respectively). Men nasalize significantly more in CV-high than in CV-low or CV-mid ($\chi2$=15.60 p=0.00; FE p=0.00; B p=0.03 and p=0.00, respectively) and significantly more in CVC-high than in CVC-low or CVC-mid ($\chi2$=51.90 p=0.00; FE p=0.00; B p=0.00 and p=0.00, respectively). This breakdown by syllable structure and vowel height provides evidence that the differences in rates are real and not simply the result of skewed datasets, as the relative distribution of the different contexts is relative similar across the two genders.

Table 4.16. The Effect of Syllable Structure and Vowel Height on the Nasalization of *LA* between Women and Men during Individual Interviews

		Women				Men			
Syllables	**Vowel Heights**	**Nasal**	**Oral**	**Total**	**% Nasal**	**Nasal**	**Oral**	**Total**	**% Nasal**
CV	High	58	196	254	23	26	228	254	10
	Mid	52	287	339	15	13	370	383	3
	Low	0	16	16	0	0	38	38	0
Total		110	499	609	18	39	636	675	6
CVC	High	38	85	123	31	27	114	141	19
	Mid	43	255	298	14	10	344	354	3
	Low	30	146	176	17	6	193	199	3
Total		111	486	597	19	43	651	694	6

With respect to the effects of social factors (Table 4.17), urban women strongly favor nasalization, whereas for men there is no difference in location. Manual laborers of both genders favor nasalization. However, monolingual women and men behave radically differently from each

other. Monolingual women strongly favor nasalization, whereas monolingual men disfavor it. Also, monolingual women have significantly higher odds of nasalizing than bilingual women. For men, however this is reversed. Monolingual men have significantly lower odds of nasalizing than bilingual men.

Table 4.17. Multi-level Logistic Regression Odds Ratios Predicting Nasalization in Non-nasal Contexts during Individual Interviews		
	Women(N=1,206)	**Men (N=1,369)**
Age		
Juniors	2.33	2.13
Location		
Urban	2.83#	0.45
Occupation		
Manual Laborers	0.10#	0.07#
Bilingualism & Years of Schooling		
Monolingual Speakers[9]	7.80#	0.18#
Frenchification		
Frenchified	2.39#	2.39
Syllable Structure		
CVC	1.40	1.43
Vowel Height		
Low	0.36#	0.15#
Mid	0.37#	0.18#
Backness		
[-back]	0.86	1.14
[+back]	Omitted due to collinearity	Omitted due to collinearity
ICC	0.10	0.05

[9] Because there was only one MonoE+ who was female, I had to collapse the monolingual groups into one larger group in the models I ran separately by men and women. I cannot make accurate statistical predictions based on one speaker.

Both men and women favor nasalization in similar linguistic contexts although they differ with respect to the effect of the social factors. For example, nasalization occurs with Frenchification at the same frequency rate for both genders (2.39[#] for women vs 2.39 for men), but the difference is significant for women and not for men. Both men and women nasalize with CVC at a similar rate (odds ratios: 1.40 for women vs 1.43 for women), and there is no significant difference for neither of the two speaker groups. Another important element of similarity between the two genders is that they favor nasalization with high vowels. It is also worth noting that all three vowel heights are significantly different for the two genders (low vowels: 0.36[#] for women vs. 0.15[#] for men; mid vowels: 0.37[#] for women vs. 0.18[#] for men).

The results of the similarities and differences among women and men in the data elicitation task are presented in Table 4.18. The average rates of nasalization of *LA* range between 5% and 31% for men and 6% and 17% for women. Syllable structure affects nasalization for women but not for men. That is, women have 6% nasalization in CV and 15% nasalization in CVC, whereas men have 15% nasalization in CV and 18% in CVC. Men also nasalize more than women with high vowels and mid vowels. Despite difference in frequency, both genders have their highest rates of nasalization with high vowels (men: 31% vs women: 17%). This shows that high vowels favor nasalization more than mid and low vowels for both women and men.

Table 4.18. The Effect of Linguistic Factors on Nasalization of *LA* between Men and Women during the Data Elicitation

Linguistic variants	Women	%	Men	%
CV	14/226	6%	31/209	15%
CVC	31/209	15%	36/204	18%
High vowels	14/82	17%	23/73	31%
Mid vowels	20/204	10%	36/188	19%
Low vowels	11/149	7%	8/152	5%
Back	17/127	13%	30/114	26%
Front	17/159	11%	29/147	20%
Central	11/149	7%	8/152	5%
Total	45/435	10%	67/413	16%

The statistical significance tests show that during the data elicitation women nasalize significantly more in CVC than in CV syllables ($\chi2$=7.09 p=0.01; FE p=0.01). However, for men there is no significant difference in nasalization by syllable structure ($\chi2$=0.43 p=0.51; FE p=0.60). What this means is that men can equally nasalize the determiner in CV and CVC, whereas women do nasalize significantly more in CVC. As for backness, there is no significant difference for women ($\chi2$=2.20 p=0.33; FE p=0.34). However, for men, there is a difference between central and back and central and front ($\chi2$=17.29 p=0.00; FE p=0.00; B p=0.00 and p=0.01, respectively). Finally, for women there is no significant difference in vowel height ($\chi2$=4.29 p=0.12; FE p=0.13), but men nasalize significantly more in high and mid vowels than in low vowels ($\chi2$=19.52 p=0.00; FE p=0.00; B p=0.00 and p= 0.01 respectively).

In Table 4.19 below, I compare the effects of syllable structure and vowel height for men and women. Although both genders nasalize at a much closer rate (e.g. Women: 45/435 = 10% Men: 67/413 = 16%), the numbers still are fairly different. Men nasalize more than women in CVC-high (23% for women vs 33% for men). In CV and CVC syllables, men nasalize more than women with high vowels, and the difference between high vowels in CV and CVC is not significantly different for men. Also, in CVC syllables, men appear to converge with women in mid and low vowels because both speaker groups have similar rates of nasalization (mid: 13% and low: 11%). This convergence is surprising given that CVC-mid and CVC-low constitute the linguistic contexts where women nasalized more than men during the two interviews. For women there is no significant difference in nasalization by vowel height in CVC syllables ($\chi2$=0.30 p=0.86; FE p=0.91). Women nasalize significantly more in CV-high than in CV-low ($\chi2$=10.67 p=0.01; FE p=0.00; B p=0.01) , whereas men nasalize significantly more in CVC-high than in

CVC-low ($\chi 2$=7.25 p=0.03; FE p=0.04; B p=0.044). Men nasalize significantly more in CV-high and CV-mid than in CV-low ($\chi 2$=18.30 p=0.00; FE p=0.00; B p=0.02 and p= 0.00 respectively).

Table 4.19. The Effect of Syllable Structures and Vowel Height on the Nasalization of *LA* between Women and Men during the Data Elicitation

		Women				Men			
Syllables	**Vowel Heights**	**Nasal**	**Oral**	**Total**	**% Nasal**	**Nasal**	**Oral**	**Total**	**% Nasal**
CV	High	3	10	13	23	4	8	12	33
	Mid	11	122	133	8	27	90	117	23
	Low	0	80	80	0	0	80	80	0
Total		14	212	226	6	31	178	209	15
CVC	High	11	58	69	16	19	42	61	31
	Mid	9	62	71	13	9	62	71	13
	Low	11	58	69	11	8	64	72	11
Total		31	178	209	15	36	168	204	18

Additionally, social factors play an important role. As seen Table 4.20, location and occupation have an effect on nasalization among men but not among women. Specifically, urban men and men who are manual laborers nasalize significantly more in non-nasal contexts than rural men and men who are non-manual laborers. Urban and rural women and non-manual and manual laborer women do not significantly differ in terms of nasalization in non-nasal contexts. Age is not a significant predictor of nasalization for either gender. Women nasalize significantly more in CVC syllables than in CV syllables. However, there is no significant difference in syllable structure as a predictor of nasalization observed for men. There are no significant differences in nasalization by vowel height among women. Men nasalize significantly more in high vowel contexts than in mid or low vowel contexts. Bilingualism and years of schooling is not significant for either gender.

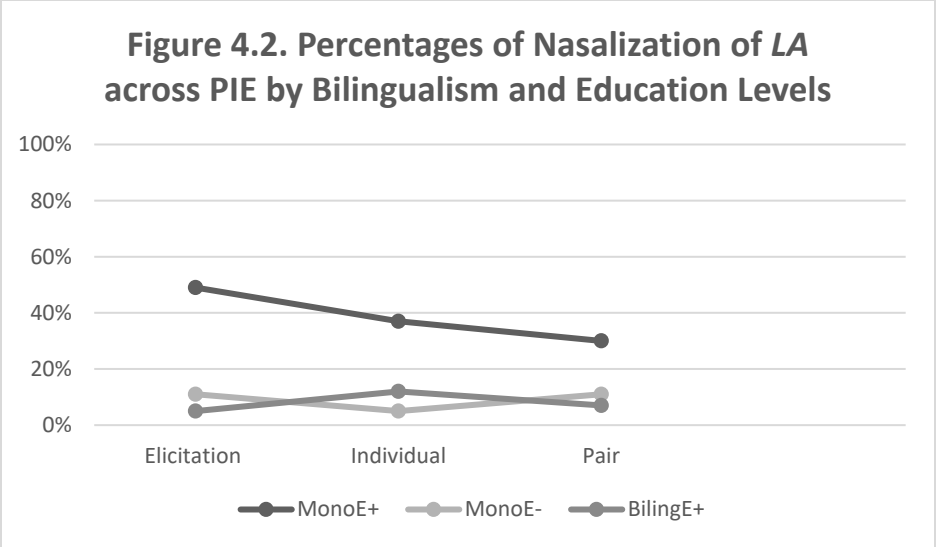
Table 4.20. Multi-level Logistic Regression Odds Ratios Predicting Nasalization in Non-nasal Contexts during Elicitation		
	Women(N=480)	**Men (N=480)**
Age		
Juniors	4.09	0.25
Location		
Urban	4.89	6.20#
Occupation		
Manual Laborers	1.48	62.08#
Bilingualism & Years of Schooling		
MonoE-	Omitted due to collinearity	0.03
MonoE+	6.16	9.58
Syllable Structure		
CVC	3.26#	0.98
Vowel Height		
Low	0.35	0.02#
Mid	0.72	0.36#
Backness		
[-back]	0.79	0.58
[+back]	Omitted due to collinearity	Omitted due to collinearity
ICC	0.29	0.28

The question of whether the data elicitation represents speaker's linguistic competence or whether it is treated as a judgement-test is also important. I suppose that both cases are possible. One group might have selected the outcome based on their own linguistic competence, while others might have provided responses because of their social perception of the correct variant. Also, speakers may use both competence and perception to decide on the outcome during the data

elicitation. The fact that manual laborers (who have lower levels of education) nasalize more in the data elicitation might indicate that the selection was made according to their perception of the correct form (or stereotype). The co-occurrence of nasalization in the determiner in hyper corrected instances like ***peu****yi* ***an*** [p**ø**jijã] for [p**e**jijã] 'the country' (speaker #20) is one example that illustrates this idea of perception. Not only does this word contain no front rounded vowel in French or HC but also monolingual HC has no front rounded vowels. As discussed later in section 4.3.4, some monolingual speakers (including speaker #20) were able to produce the front rounded vowel and extend it to the wrong word even though they had very little schooling and no knowledge of French. The production of the prestigious form in the wrong word, perhaps, might be used by some monolingual Haitians to make their speech sound more sophisticated.

4.3.2 The relationship between social categories and stylistic variation

As seen in Figure 4.2, the overall results for PIE indicate that the highest rate of nasalization among the monolingual speakers (i.e. MonoE+ and MonoE-) occurred during the data elicitation task, while the bilingual speakers (i.e. BilingE+) produced their highest rate of nasalization during the individual interview. The lowest rate of nasalization among the MonoE+ speakers occurred during the pair interviews, while the BilingE+ speakers had their lowest rate of nasalization during the data elicitation.



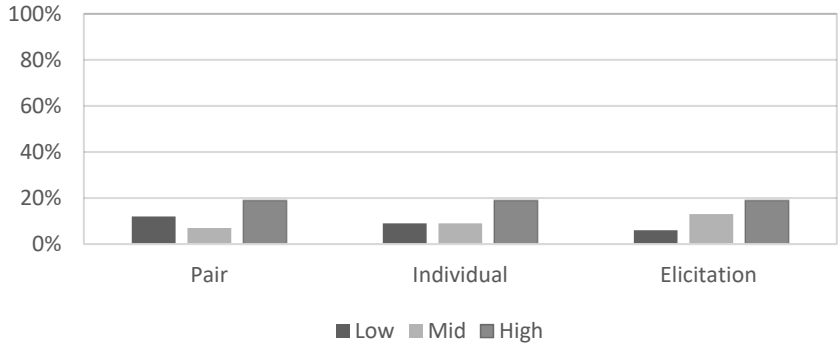
As is often the case for sociolinguistic variables, there may be a link between the nasalization of the determiner and the type of task used for the data gathering. But the task alone cannot predict speakers' behavior. As observed in this study, monolingual speakers produce nasalized determiners at a higher rate than those (i.e. bilingual speakers) who have introduced it. Some speakers increase their use of the variant as they become more aware of it, while others refrain from using it as they become aware that the focus of the study probably is the form of the determiner and, thus, probably exert a more conscious control over the variants they produce. The fact that monolingual speakers have surpassed bilingual speakers in their use of nasalization can be seen as the adoption of a prestigious feature. The fact that the elicitation is the task in which MonoE+ speakers nasalize the most is compatible with this claim, since speakers become more aware of their linguistic performance during this task. Finally, the fact that this is the task for which BilinE+ speakers have the least nasalization suggests that these speakers are aware of the standard form. This observation is in accordance with Labov (1966)'s observation of the overapplication of the post-vocalic /r by the lower-middle class speakers. He noted that the lower middle-class speakers had more /r/ than the upper-middle class speakers, even though the use of the production

of the post-vocalic /r/ is generally associated with the speech of the upper-middle class New Yorkers. Labov suggested that these lower-middle class speakers were attempting to emulate the pronunciation of upper-middle class speakers.

4.3.3. The influence of vowel height and syllable structure

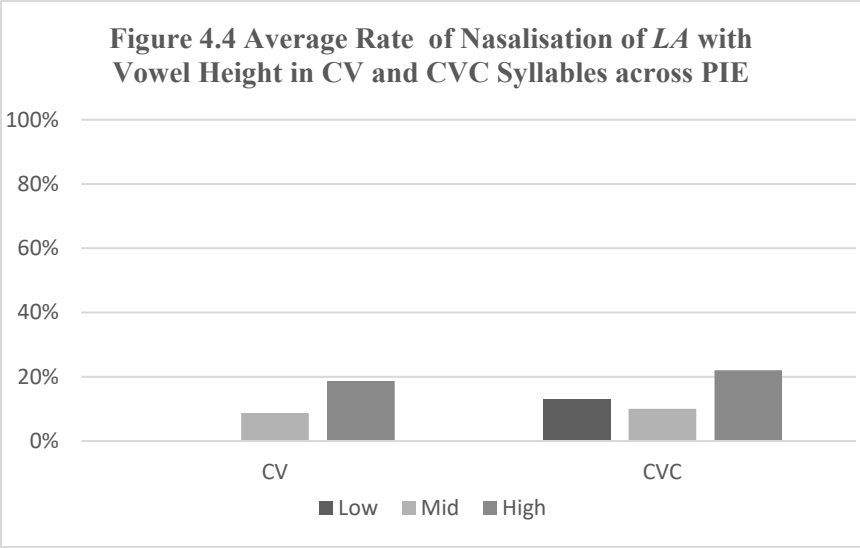
Across the board, high vowels constitute one of the most favorable linguistic contexts for *LÃ*. While the average occurrences of *LÃ* with high vowels remain relatively high across PIE, the rate of nasalization with mid and low vowels varies. The highest rate for [a] can be found in the pair interviews. Mid vowels, however, show the highest occurrences of nasalization of the determiner during the data elicitation, as indicated in Figure 4.3. The crosstabulation tables (Tables 4.13, 14.16 & 4.18) show increases in nasalization with CV-mid among men (PIE: 2%, 3%, 23%) and men's convergence with women in CVC-mid (PIE: 3%, 3% & 13%).

Figure 4.3. Vowel Height and Percentages of Nasalisation of *LA* in Non-nasal Contexts during PIE



The average rates of *LÃ* occurring during PIE are 27.4% with CV and 45% with CVC. As I mentioned earlier, the difference in nasalization between these two syllabic contexts might result from the constraint against the occurrence of *LÃ* after low vowels in CV syllables. Since the

presence of a coda in a CVC structure increases the chance of nasalization of the determiner, the average rates of *LÃ* with low vowels change from 0% in CV to 13% in CVC, as shown in Figure 4.4. In contrast, mid and high vowels got a slight boost when they were followed by a coda (mid vowels: 8% in CV to 10% in CVC; and high vowels: 19% in CV to 22% in CVC).



4.3.4 Frenchification and level of bilingualism

In this section, my main goal is to address one fundamental question: Is there a relationship between Frenchification and the nasalization of *LA*? The use of Frenchified features, or Frenchification, in HC is a concept that is often associated with a speaker's level of education and contact with French. In order to determine this relationship, I decided to examine the use of *LÃ* in relation to Frenchified NP's produced by bilingual and monolingual speakers of different levels of education. Table 4.21 presents the average frequency of *LÃ* with Frenchified features. The bilingual speakers use more Frenchified forms than the monolingual ones. However, compared to the MonoE+ group, their rate of nasalization is much lower. Even though MonoE- speakers have

a low frequency of Frenchified NPs that is comparable to that of MonoE+ speakers, the extent to which these Frenchified NPs favor nasalization is identical to that of BilingE+ speakers: 43%.

Table 4.21. Average Rates of *LÃ* with Frenchified NPs during Pair and Individual Interviews

Bilingualism & Years of Schooling	*LÃ*	Frenchified	%
BilingE+	99	230	43
MonoE-	13	30	43
MonoE+	20	26	77

These results provide substantial evidence for the scenario describing the mechanism through which nasalization might have spread to other speakers. Frenchified HC or *Kreyòl swa* 'smooth HC' (see Fattier 1984; Valdman 2015) is the variety associated with bilingual Haitians. In addition, the nasal variant *LÃ*, being introduced by the younger bilingual speakers, frequently alternates with the oral *LA* (See Valdman 1991). During interactions with bilingual speakers, monolingual speakers may have associated the use of *LÃ* in non-nasal environments with Frenchified HC and adopted it as a prestigious form because it is part of the HC variety spoken by the educated bilingual speakers and the Haitian elite. The low frequency rate of Frenchified features for the monolingual speakers with below-average education in Table 22 illustrates the fact that these features are still linguistically marked in the HC variety spoken by most monolingual Haitians and even those with basic levels of education. The effort or attempt to speak with Frenchified features may result in hypercorrection such as the ones in (42).

(42) Front vowel rounding and hypercorrection in HC

a. Kounya *atout* ***keu*** *lajan* ***keu*** *w* ***deupanse***
pou timoun sa, nou fon (fè on) ***deu*** *mwa lopital la ahèk timoun s*a (Speaker FJRm-19]
'Now despite all the money you spent for this child,
we spent about two months at the hospital with this/the child'

b. *Michèl Mateli te vin vini, son (se on) prezidan ki bay* ***sèuvis*** (Speaker MSRm-31)
'Michel Martelly got (to power), it/ (he)'s a president who provides services'

These two examples show that the use of Frenchified features is not limited to bilingual speakers. Although both speakers are monolingual, their speech contains front rounded vowels. All the cases of front rounded vowels are indicated by bold characters. The first speaker uses front rounded vowels four times in one sentence, one of which (*d**eu**panse* for *d**e**panse* 'to spend') is a case of hypercorrection. The second speaker also provides an instance of hypercorrection in the word *service*: *s**èu**vis* for *s**è**vis*. Based on my personal observations and knowledge of my monolingual subjects' activities, some of these speakers might be exposed to the Frenchified variety through contact with bilingual educated speakers who speak the Frenchified variety (e.g. clergy, employers, family members, etc.). For example, the first speaker in sample (42) is a single mom who frequently works as a maid for several educated businesspeople in Les Cayes. Although she is illiterate, she knows personal stories about them and has access to their family and networks. The second speaker is a 40-year-old farmer with no schooling. He has lived in the rural town of Béraud all his life. He is involved in church activities and has gained the trust of the priest and the school principal for whom he works as a side job.

It is difficult to provide an explanation as to why these speakers took the risk of using hypercorrected forms (instead of using the monolingual forms), which could potentially provoke mockery. The use of hypercorrection is often adopted in Haitian comedy to portray uneducated Haitians, as well as rural monolingual Haitians (e.g. maids, farmers, custodians). Therefore, some Haitian parents and educators are increasingly becoming aware of *Kreyòl swa* and often emphasize the importance of correcting their children either for not using the front rounded vowels where it is expected (e.g. *d**u**ri* and not *diri* 'rice') or for overgeneralizing its usage (e.g. *d**e**panse* and not

*deu**p**anse*). Perhaps, this is where speaker's linguistic awareness, that is, speakers' attempt to portray themselves as capable of using a prestigious form, even if it is worth the risk of making a few cases of hypercorrection, comes into play.

Unlike Frenchified features, the nasalization of the determiner is an indigenous feature of HC. This suggests that the extension of *LÃ* to non-nasal contexts should be easier to produce than the front rounded vowels and postvocalic /r/. I suspect that when Frenchified forms precede the determiner, their contact contributes in nasalizing the determiner by association with bilingual speech where both Frenchification and *LÃ* often co-occur. Therefore, the rarity of Frenchification in the monolingual speech makes *LÃ* more likely to occur in non-nasal contexts.

4.4 Discussion

Based on the results of this study, it is evident that the nasalization of *LA* in non-nasal contexts has spread beyond urban bilingual speakers to other speaker groups: those of different ages, geographical locations, gender, levels of education, particularly among women and monolingual speakers with average or higher education who appear to be the two main groups leading the change. However, not every speaker nasalizes at the same rate; for instance one speaker does not nasalize at all (e.g. #24 in Table 4.23 below).This suggests that the change is still in progress since the use of *LÃ* in non-nasal environments continues to vary with sociolinguistic factors as well as speaker's idiosyncratic differences.

I would now like to turn to a discussion of individual speakers' rates of nasalization, as well their patterns across tasks. As indicated in Table 4.23, women have the highest total rate of nasalization. This group includes two urban juniors (speakers #1 and #4), as well as one urban senior (speaker #7). Although these three speakers share similar socio-economic status and live in

the same geographical location, they differ in age and education level. Speaker #1 is a graduate of law school, while speaker #4 has about 7 years of schooling. The third speaker (#7) is a 41-year-old single parent with 2-4 years of schooling. Of these three speakers, only speaker #1 is proficient in French. The results show that speaker #1's rates of nasalization are 23%, 41% and 10% across PIE. However, the rates of nasalization for speaker #4, are 71%, 63%, and 40% across PIE. The third speaker (i.e. speaker #7) has 45%, 22%, and 0% across PIE. These numbers illustrate the absence of significant difference in nasalization between MonoE- and BilingE+ and the difference between these two later groups and the MonoE+ group.

As for the senior women, the ones who nasalize the most are speakers #17 and 21. Although they nasalize significantly more during the interview as compared to their rural peers, their average rates of nasalization are lower than the urban women. Most bilingual and monolingual women in urban areas nasalize at a similar rate. However, bilingual women in rural areas nasalize considerably more than monolingual women. This indicates that the combined factor of education and bilingualism is more important for the speech patterns of rural women. It is worth nothing that not every speaker nasalizes at the same rate. For some speakers, for example, the difference in nasalization across PIE is not substantial (e.g. speaker #20), whereas for others it is important (e.g. speakers #3,1, and 16). For a third group of speakers (#18 and 19), there are not enough tokens to truly assess a real effect of the tasks.

Table 4.23. Average Rates of Nasalization of *LA* in Non-nasal Environments during PIE by Speaker

Participants	Nasalization of *LA* in Non-Nasal Contexts						
	P		**I**		**E**		**Total**
1. FJUb	3/13	23%	85/208	41%	3/30	10%	251
2. FJUb	1/13	8%	11/90	12%	1/30	3%	133
3. FJUm-	3/13	23%	3/30	10%	19/30	63%	162
4. FJUm+	12/17	71%	64/102	63%	12/30	40%	149
5. FSUb	1/11	9%	9/81	11%	1/30	3%	122
6. FSUb	0/14	0%	3/100	3%	3/30	10%	144
7. FSUm-	19/42	45%	16/73	22%	0/30	0%	145
8. FSUm-	3/23	13%	7/124	6%	0/30	0%	177
9. MJUb	4/26	15%	12/199	6%	1/30	3%	255
10. MJUb	1/47	2%	6/165	4%	1/30	3%	242
11. MJUm+	5/56	9%	0/39	0%	25/30	83%	125
12. MJUm+	12/25	48%	21/90	23%	7/30	23%	145
13. MSUb	1/23	4%	1/61	2%	1/30	3%	114
14. MSUb	1/18	6%	5/108	5%	8/30	27%	156
15. MSUm-	2/19	11%	2/43	5%	0/30	0%	92
16. MSUm-	0/35	0%	1/192	0.5%	18/30	60%	257
17. FJRb	1/8	13%	5/30	17%	1/30	3%	114
18. FJRb	0/5	0%	1/28	4%	0/30	0%	63
19. FJRm-	0/4	0%	10/160	6%	1/30	3%	194
20. FJRm-	0/28	0%	1/18	6%	1/30	3%	76
21. FSRb	2/6	33%	2/46	4%	0/30	0%	82
22. FSRb	0/4	0%	3/38	8%	2/30	7%	72
23. FSRm-	0/16	0%	0/41	0%	0/30	0%	87
24. FSRm-	0/11	0%	1/37	3%	1/30	3%	78
25. MJRb	1/2	50%	17/68	25%	1/30	3%	100
26. MJRb	0/24	0%	3/75	4%	0/30	0%	129
27. MJRm-	0/4	0%	2/67	3%	1/30	3%	101
28. MJRm-	0/23	0%	3/49	6%	0/30	0%	102
29. MSRb	0/22	0%	5/95	5%	1/30	3%	147
30. MSRb	0/11	0%	2/72	3%	1/30	3%	113
31. MSRm-	1/25	4%	0/23	0%	1/30	3%	78
32. MSRm-	0/9	0%	2/23	9%	1/30	3%	62

F: Female; **M**: male; **J**: Junior; **S**: senior; **b**: bilingual; **m**-/+: monolingual (<7/7+schooling); **U**: urban; **R**: rural

Another important factor that influences speaker's selection of *LÃ* is stylistic variation characterized by the level of formality associated with the task. Although the most significant change in the rates of nasalization occurred during the data elicitation task (e.g. speakers 4,7, and

60), not every speaker behaved similarly to others in their social groups. For instance, male speakers #11, 14 and 16 show large increases in nasalization in the data elicitation, while other male speakers' rates of nasalization decrease during the elicitation (e.g. #9, 12, and #25). Also, speaker #3's rate of nasalization increases during the data elicitation, while speaker #7's rate of nasalization decreases.

Speaker #4, a woman, and #25, a man, constitute two interesting cases. The first speaker has the highest rate of nasalization among the urban speakers during the interviews (P, I, E: 71%, 63%, 40% respectively) and the second speaker has the highest percentages of nasalization among the rural speakers during the interviews (P, I, E: 50%, 25%, 3% respectively). They are also different in a sense that speaker #4 is an urban MonoE+, whereas speaker 25 is a rural BilingE+. Because speaker #4's frequency rate is also the highest of all the subjects 'rates, her case is discussed more thoroughly in the next paragraphs below. As for speaker #25, unfortunately, his apparent high rate of nasalization during the pair interview (50%) cannot be given any credence given that it is based on only two tokens during the pair interviews. The real difference observed in his speech is between the individual interview (17/68 or 25%) and the data elicitation (1/30 or 3%). That means, he nasalizes less during the data elicitation as compared to the individual interviews. Of all the rural speakers, he has the highest level of education (second year in business school) and regularly commutes to the southern capital, Les Cayes, to attend classes. This variation may indicate the speaker's attempt to not only signal sophistication but also to distance himself from his rural peers. To this date, education has constituted one of the most valuable social factors for working-class and lower middle-class Haitians because these speakers perceive it as the main way to climb up the social ladder. Therefore, speakers who make it beyond high school to college may view themselves as different and try to signal it, especially when the investigator is a college-

educated outsider. In this situation, speakers could use nasalization to distance themselves from their rural peers rather than showing solidarity with their group.

For rural male seniors, the rate of nasalization remains relatively stable across PIE. For instance, none of the rural seniors (i.e. speakers #29, 30, 31, and 32) show important differences in their use of nasalization across PIE, as compared to their monolingual urban counterparts. The average rates of nasalization for the rural male seniors (e.g. speakers #29, 30, 31, and 32) vary from 0% to 9% across PIE. The highest rate of nasalization among this speaker group occurs during the individual interviews (e.g. speaker #32: 2/23 or 9%). It is worth noting that all the rural male seniors have the same frequency of nasalization during the data elicitation (3%). However, their urban peers (e.g. speakers # 14 and 16) nasalize at a much higher rate across PIE. For example, speaker #16's nasalization rate increases from 0% during the interviews to 60% during the data elicitation. Speaker #14's nasalization rate also varies from 6% to 27% across PIE. Perhaps, the urban monolingual seniors have more contact with speakers who use the variant with a higher frequency. Also, it is possible that the rural seniors have marginal acquisition of the variants and lack the competence to increase their use in more formal settings.

The group of women whose rate of nasalization decreases considerably across PIE includes speakers #7, 21, 4 and 8. For example, speaker #7 is a monolingual urban senior woman who has a 45% nasalization rate during the pair interview (the contexts in which several other women nasalize the most) and a rate of 0% nasalization during the data elicitation. The case of speaker #21 is interesting. She is a native of Béraud, a primary school teacher, and a human rights activist. She is a grassroot leader who mobilizes women and educates them about social issues (e.g. business, politics, injustice, child domesticity, domestic violence, etc.). She often travels across the country to attend training sessions and conferences. She was very excited to talk about her

experience and her dream for the community. Speakers #4, 7 and 8 live in Carrefour (urban). At the time of the study, speaker #4 had stopped going to school and was attending a school for sewing school. But she also expressed her interest in becoming a *jardinière* (primary school teacher). Speakers #7 and 8 are both vendors and single mothers with little schooling. Even though these three speakers do not share similar educational backgrounds, they all share familiarity with urban life, which is greatly influenced by bilingual HC. Their high rates of nasalization could be a way to signal their familiarity with this speech.

4.5 Conclusion

The empirical evidence provided in this chapter has demonstrated that the spread of *LÃ* to non-nasal contexts is still in progress because it continues to co-vary with its oral counterpart *LA* (e.g. *tab la/lan* 'the table) in the speech of speakers of different education levels and those with different proficiency levels in French, as well as those who live in different geographical areas of the country (i.e. urban and rural). However, the nasalization of the determiner after oral segments did not occur to the same extent for all speakers. Women nasalized more frequently than men during the individual and pair interviews. In addition, the use of *LÃ* was influenced by speaker's level of education as well as their level of proficiency in French (i.e. bilingualism). For instance, monolingual speakers with average and higher levels of education nasalized more than bilingual speakers with average or higher levels of education as well as the monolingual speakers with lower than average education, and the difference in nasalization between the former and latter two groups is statistically significant across PIE.

In addition to the effects of social factors on the nasalization of *LA*, the results showed that the selection of *LÃ* in non-nasal environments varied with the type of task (i.e. PIE). One of the

most significant changes observed during PIE in the use of *LÃ* occurred during the data elicitation, as the average rate of *LÃ* increased for men and dropped among the women group. But again, not all speakers from these two groups (i.e. men and women) behaved in the same way. For instance, in the data elicitation, the nasalization rates increased for some women but dropped considerably for others. The differences between the rates of nasalization during PIE and within the same speaker groups confirm the effect of stylistic variation. But even with confirmation of stylistic variation in the frequency results, it is difficult to predict speaker's choice given that even within speakers who share the same social categories, some may exhibit opposing behaviors to their group (e.g. speakers #3 and #4). I do recognize that I do not have explanations for the different behaviors observed and that this is an issue that deserves to be investigated in future research.

The second question I addressed in this study was concerned with whether the presence of *LÃ* in non-nasal contexts is linguistically conditioned. The results showed that high vowels constitute the most favorable context to the presence of *LÃ* in non-nasal environments, while the low vowel [a] is the most unfavorable. This low occurrence of nasalization when the preceding vowel is [a] was explained by a constraint which prohibits two identical vowels from surfacing separately (e.g. *papa a* 'the father' is pronounced [papa:] and not [papa a]). It is not the low vowel *per se* that prevents nasalization, but the merger process that operates in the absence of a coda consonant. The nasalization of the determiner is allowed with the nucleic [a] in CVC syllables (e.g. *pat la* [patla] 'the dough'). Because *LÃ* appears in a CVC syllable regardless of the vowel height, this makes this syllable structure a more favorable context for nasalization than CV.

The third question I investigated in this study was whether there is a link between the nasalization of the determiner and the presence of Frenchified features. This study finds a relationship between the use of *LÃ* and the presence of Frenchified features for some speakers and

not for others. Because bilingual speakers use Frenchified features with both nasalization and non-nasalization, the study found a weak relationship between the two. However, among the monolingual speakers (particularly those with average and higher schooling), the study suggests that *LÃ* occurs at a higher rate whenever they use Frenchified features even though these speakers used these features (e.g. front vowel rounding, post-vocalic [r]) at a lower rate than the bilingual speakers. My intuition is that the occurrence of *LÃ* in non-nasal contexts is a phenomenon that had been spread by the bilingual speakers to the monolingual speakers, as the latter group came to be in contact with the bilingual speakers' Frenchified speech. The contact between the two groups of speakers results from increased access to schooling, urbanization, mobility between rural and urban areas (e.g. motorcycle taxis), networking between friends, acquaintances and family members living in the urban areas, and the rising access to affordable technology (e.g. portable phones) and social media (e.g. Facebook, WhatsApp). This is to say that the use of *LÃ* in non-nasal environments is not directly linked to proficiency in French *per se*, but rather to familiarity with a Frenchified variety of Creole (also known as *Kreyòl swa*) spoken by educated bilingual speakers. Because this variety has gained considerable prestige among educated Haitians, it has been adopted in the media, and in almost any public and governmental spheres where Haitian Creole is being used.

Chapter V: Conclusion

This last chapter summarizes the research findings, discusses remaining questions and how they may be addressed in future work, and lays out empirical and methodological contributions.

5.1. Summary

This study started with a main focus on the nasalization of the postposed determiner */la/* (*LÃ)* after an oral segment, (e.g. *chat la/lã* [ʃatla/lã] 'the cat', and *peyi a/an* [pejija/ã), a linguistic environment where the nasal variants have been claimed to not occur. In his 1991 pilot study, Valdman demonstrated that there was a correlation between the age of the Port-au-Prince middle-class bilingual speakers and the use of nasalization in non-nasal environments. I have used a variationist sociolinguistics approach to investigate the issue more extensively. The methodology included three sets of data collected from pair interviews (P), individual interviews, (I) and data elicitation (E) gathered from 32 natives of Haiti. Speakers' social profiles were coded for age, sex, geographical location, occupation, education and level of bilingualism. To account for all the morphophonological contexts where the determiner occurred, I coded for four variables: syllable structure, vowel height, vowel backness, and Frenchification (i.e., front rounded vowels and the post-vocalic /r/). Through this investigation, the study sought to answer three main questions.

RQ1: Has nasalization of *LA* in non-nasal environments spread to monolingual and rural speakers?

The PIE results showed that the use of *LÃ* in non-nasal environments has extended beyond urban bilingual speakers to monolingual and rural speakers. Monolingual speakers nasalized the

determiners as well, and sometimes at a higher frequency rate than the bilingual speakers, particularly during the peer and individual interviews.

RQ2: Is the use of *LA* in non-nasal environments conditioned by any linguistic factors?

As for the effects of the linguistic factors, the study found a relationship between the types of syllables that precede the determiner and the nasalization of the determiner. For example, *LÃ* occurred more frequently when preceded by CVC syllables than CV syllables. However, the difference in nasalization between these two syllable structures varied with PIE. For instance, when considering all sociolinguistic factors, CVC was selected as a significantly favorable predictor of nasalization during the individual interview (see Table 4.8) but did not significantly differ from CV during the pair interviews or data elicitation (see Tables 4.5 and 4.11, respectively).

With respect to vowel height, the results demonstrated that high vowels constitute a favorable linguistic environment for the nasalization of the determiner. High vowels are highly favored contexts for nasalization in CV and CVC syllables, while the low vowel [a] has a dis-favorable effect, particularly in CV syllables. Regarding backness, the study was unable to produce an accurate prediction due to collinearity, which occurs as a result of multiple factors being correlated not just to the response variable (i.e. *LA* or *LÃ*), but also to each other.

The last research question was as follow:

RQ3: Is there a link between the Frenchified features used in HC and the nasalization of *LA* in non-nasal environments?

The study suggests a correlation between the use of *LÃ* and the presence of Frenchified features in the NP only for the monolingual speakers with average and higher education. Because bilingual speakers use Frenchified features more frequently and equally with the oral and nasal variants of the determiner, their presence shows no significant effect on nasalization. However,

among the monolingual speakers (particularly those with average and higher schooling), *LÃ* occurs at a higher rate when they use Frenchified features even though they use these features at a lower rate than the bilingual speakers.

5.2. Contributions

This dissertation emphasizes the importance of considering the entire final syllable in the description of the definite article, unlike previous descriptions of HC which proposed the immediate segment as the only linguistic context for determining which allomorph of the determiner occurs (e.g. Sylvain 1936; Faine 1937; Hall 1953; d'Ans 1968 Valdman 1978; Dejean 1980; Cadely 1996; DeGraff 2007). The problem with that approach is that there is no way to account for the influence of vowel height in instances where final syllables end in an oral consonant: *pi**tit*** 'child' vs *pa**tat*** 'sweet pota**to**'. Let's say, speaker X nasalizes the determiner after both *peyi* and *pitit* and not after *papa* and *patat*. According to the traditional description, the alternation between *pitit la* and *pitit lan* 'the child', as well as *patat la* and *patat lan* 'the sweet potato', would be treated as free variation because both words share an identical context, i.e. the oral phoneme [t]. However, if one considers the entire syllable structure, it becomes clear that there is a relationship between the height of the nucleic vowels and the nasalization of the determiner.

5.3. The issue of Frenchified HC or *Kreyòl swa*

I propose that the extension of *LÃ* to non-nasal contexts to monolingual speakers may have occurred through direct contact with Frenchified features found in the speech of bilingual speakers. The association of *LÃ* in non-nasal environments with Frenchified features of *Kreyòl swa* has been noted by some linguists (e.g. Dejean 1980; Joseph 1984; Valdman 1991, 2015), and yet there has

been little convincing evidence to support this claim until now. *Kreyòl swa* itself has often been miscategorized as decreolization because this variety is more frequently used by bilingual Haitians. In fact, the assumption that this HC variety is used exclusively by bilingual speakers and the elite and that these speakers have no linguistic contact with monolingual speakers is erroneous. In all of Haiti, educated bilingual Haitians (e.g. bankers, engineers, priests, government officials, journalists, professors, etc.) interact with monolingual speakers, with whom some of them have close ties. During interactions with these speakers, the Frenchified features of *Kreyòl swa* can be found in the speech of both bilingual and monolingual speakers, as seen in (43) and (44) below. The italicized passages correspond to HC, while the non-italicized ones are French. The bold fonts indicate cases of nasalization of *LA* in non-nasal environments, and the front rounded vowels are both in bold font and underlined. The ellipsis (…) indicates pauses. I use brackets to indicate ambiguous instances that could belong to either French or HC. I will use the term Frenchified features and *Kreyòl swa* interchangeably, with a preference for Frenchified features to refer to the linguistic behavior and to *Kreyòl swa* to refer to HC variety.

(43) Samples of *Kreyòl swa* produced by bilingual speakers during individual interviews

a. *Papa m se moun Kanon* c'est-à-dire… *eeee... tou prè...dd…Dusis.* [*Epy**u**i*] *manman m se moun Cha**r**donyè**r**. sètadi nan kot **su**d **lan***. (Speaker #25MJRb)

'My father is from Canon, which means that it's very close to Ducis. And then my mother is from Chardonnière, that is, at the southern coast.'

b. *D**eu**zyèm rezon an ou d**u**mwens ki te ka pr**eu**mye rezon an, se pask**eu** m te gen yon kouzen mwen ki te polisye, ki te USGPN.* [Et puis] *gon l**èu** gon polisye m ap konn kisa l gen avè l, **polisye an** rale zam sou li m**eu**nase l. Ò, nou konnen n trè byen, tout son moun rato w sou w pa fè l li anvan, se ou lap fè l. Bon sa rive k**eu** l tire **polisye an**. Li pase pluzy**èu** tan nan prizon. M pa konn sou w te tande istwa**r** sa non. Se ton polisye ki te rele Y. Se te ane anwo sa pase. E k**eu** lè l tire **polisye an**, **skandal lan** pou fanmi an.*" (Speaker #1FJUb)

'The second reason, or at least which could be considered the first reason, is because I had a cousin who was a police officer, and who was in the USGPN (police force). And then one time there was a police officer, I didn't know what was wrong between the two of

them, the police officer pulled his gun and threatened him. Although we know very well that anything you missed first, the same could happen to you too. So, he happened to shoot the other police officer. He spent a lot of time in prison. I don't know whether you had heard about that story. It was a police officer whose name was Y. It happened last year. And then when he shot the police officer, this had caused a scandal for the family.

c. …il est vrai que *lòm ka fè* ***erè an*** *nenpòt kòman. Men, pou mwen menm kesyon w poze a la se sèlman Bondye. Nan sitiyasyon ke peyi dAyiti r****eu****twouve l la se sèlman Bondy****eu*** *k kapab restore peyi a ki ka fè kichòy. Men m pa ta renmen, m pa ta vle kwè tou se yon nonm a(k) bib nan men, se yon nonm ki gen yon legliz, on p****èu****p l ap dirije, se yon nonm ki gen yon legliz kòm be****r****je, kòm pastèu, l ap* paître*, l ap pran swen avèk* le troupeau de Dieu *pou abandone legliz epi pou l di k****eu*** *Bondy****eu*** *voye l kòm prezidan* de ce pays**.** (Speaker #14MSUb)

'…it is true that men could make mistakes in any rate. However, to me the question you've asked, it's up to God. Given the situation that Haiti has found itself into, only God could restore the country and who could do something. However, I wouldn't like, I would not want to believe that a man with his Bible in hands, a man leading a church, someone leading a congregation, a man who is responsible for a church as a shepherd, as a pastor, (a church) he is taking care of, he's taking care of God's herd, and for him to abandon this church claiming that God had sent him to run for the presidency of this country.'

Unlike monolingual speakers, bilingual Haitians frequently switch between HC and French. When they switch to HC, the variety they often used is *Kreyòl swa*, where we find front rounded vowels, postvocalic [r] and the use of the complementizer *keu* (see Valdman 2015). Depending on the sociolinguistic context, the use of these Frenchified features may vary with their monolingual counterparts (e.g. *lar****u*** [lar**y**] ~ *lar****i*** [lar**i**] 'street', *Bondy****eu*** [bɔ̃dj**ø**] ~ *Bondy****e*** [[bɔ̃dj**e**] 'God'). The use of *LÃ* often occurs in non-nasal environments, for example, after a CV syllable: *poli****sye an*** [polisjejã] 'the police officer'. In comparison to the bilingual speakers, the monolingual speakers generally produced far fewer Frenchified features. Even though both speaker groups nasalize the determiner with Frenchified features, the study suggests a stronger relationship between Frenchified features and nasalization of the determiner among the monolingual group. For example, in (44a) the determiner is produced with the post-vocalic (r): *jadinyè****r lan*** [ʒadinjɛ**rlã**]

'the female primary teacher'. In 44(b), *LÃ* occurs directly after the front rounded vowels [y] in CV (e.g. *lar**u an*** [lar**yjã**] 'the street') and [œ] in CVC: *p**èu**p l**an*** [p**œ**pl**ã]** 'the people'.

(44) Samples of *Kreyòl swa* produced by monolingual speakers during individual interviews

a. *...gen deu jan **profesèu a** vin aji anvè **elèv lan**, l fè **elèv lan** pa ka travay. Si **elèv lan** li ta la l ap eksplike on bagay, timoun nan se baton an menm, ke moun nan gendwa p ap bay timoun nan baton, men gen de jès l ap fè, e timoun nan tou l gentan konnon w renmen bay baton, e baton an deja la limenm li toujou pè, nanm ni ekarte l. Mwen m son moun m pè baton mwen menm. Gen timoun ki pè baton. Gen timoun ki mande baton pou l avanse, men konsa tou gen timoun ki pa mande baton. Tankou jadinyè yo, sou w pa genyen sans lan nan oumenm, ou son moun ki renmen bat timoun, ou son moun ki renmen m**u**nimize* (37 :40) *timoun, ou renmen timoun jete, w al aprann jadinyè**r**, depi timoun nan vini…timoun nan ap tou rabi. W ap rete pou w **jadinyèr lan** alèz avèk timoun nan.*' **(**Speaker #4FJUm+**)**

'…Sometimes the way the teacher would treat the student only discourages him from making progress. When explaining something to the child, all he could chose to do is whipping the child, and even when he does not whip the child, the way he treats the child, and the child already knows that you like whipping, which scares the child out of his wits. I am a person who's afraid of whipping. Some children are afraid of whooping. Some children need whooping to make progress, while other children don't need whooping. Like the (female primary) teachers, if you don't have the gift in you, you're someone who likes to whip children, you're someone who likes to put children down, you like to reject children, and you go learn elementary education, when the child gets there…the child will get rusty. However, one (can) observe that the (female primary) teacher is comfortable with the child.'

b. « *Paskeu nou… jete fatra nan lar**u**. Nou jete l nan lari leta pa ranmase l. Men nou menm si nou pa t lage l, nan **lar**u **an** ou wè depi lapli ap tonbe, tout moun ki te gen fatran anndan lakay yo, pandan lapy**ui** ap tonbe tout pwofite, yo pote fatra. Pafwa menm poto w fin lage fatra lapli a pa… pase kounya tout fatra sa rete nan lari a, li plen lari a. Konsa tou machann yo eeee… yo pa genyen… bon nou tout renmen di nou gen yon kote egzat pou nou jete fatra tou. Sa l ve de pou w rive bò mache yo ou toujou jwenn yon gwo pil fatra. Tout machann yo, tout fatra yo fè kote yo chita yo nèk ranmase l yo sanble l bò mache a fè fè pil sa vle di si yo te ale avè l lwen jete l kote l ta dwe jete a, konsa pa t ap gen fatra sa k fè nou reskonsab fatra ki nan lari. Leta pa fè travay yo, men nou menm tou, eennn… **pèup lan** nou reskonsab paske se nou k jete fatra nan lari a.* » (Speaker #7FSUm-)

'Because we…throw trash on (the) streets. We dump it on (the) streets, the government does not collect it. So, even when we don't throw it on the street, when it rains, everyone

> who has garbage inside of their homes enjoys dumping it when it rains. Sometimes after dumping the trash, the rain stops and the trash stays in the middle of the street, all over the street. So, all the vendors they uhhhh…they don't have…well, we all like to say that we have a designated area to dump the trash. What it is, when you go to the markets, you always find a huge pile of trash. All the vendors, all the trash they make where they're sitting, they just collect it and pile it up next to the market, make… make piles (of it), which means they could go farther with it and dump it at the place where they're supposed to, that way there would not be any trash. That's why we are the ones responsible for street littering. The government does not do its job, but, us as well, uhhhh…the people, we are responsible because we are the ones who throw trash on the street.'

Although bilingual speakers nasalize with front rounded vowels (e.g. ***su** d **l**an* [s**y**dl**ã]** 'the south'**)** as well as along with postvocalic [r], the results found no significant link between them and the nasalization of the determiner.

Finally, it is worth noting that despite the link between Frenchification and nasalization, nasalization of the determiner is an independent linguistic development that does not result from direct contact with French *per se*, given that *LÃ* is a variant of standard HC (i.e. the monolingual HC variety) which generally appears in nasal contexts. The association of *LÃ* with Frenchified features by monolingual speakers might have been established based on their frequent co-occurrence in the speech of some Haitians, particularly bilingual speakers.

The examples above demonstrate that the use of *Kreyòl swa* cannot always be associated with direct contact with French (or more precisely proficiency in French) given that the empirical and quantitative analyses presented in this study establish that monolingual speakers do not have to be proficient in French to produce the features of "*créole francisé*" Frenchified Creole. It is true, nevertheless, that to this date this variety of HC has been widely used by almost every speaker "*scolarisé*" (those with schooling) regardless of their level of French proficiency. My empirical evidence suggests that monolingual speakers may Frenchify more frequently in formal contexts and less frequently in informal contexts, perhaps because they perceive it as a prestigious variety.

This characterization of Frenchified features is consistent with the HC variety spoken by bilingual speakers, as well as that of the very well-known Haitian reporter Liliane Pierre Paul, a famous news broadcaster and the co-owner of *Radio Kiskeya*. Pierre Paul is particularly famous for her *nouvèl katrè* (4:00 pm news), which has been broadcast for decades and is listened to by millions of Haitians all over the country on weekdays from 4:00 pm to 5 p.m. Her *jounal katrè* has gained popularity nationwide among the Haiti's monolingual mass often known as *pèp la*, for the way she presents and analyzes the local and international news in HC. She is also known for being an activist for the free press in Haiti and one of the most outspoken critics of the Duvalier regime. She explicitly expresses that her insistence on broadcasting in HC could help grass roots support for changes in the government. Below in sample (45) is the transcript of a segment of a news broadcast dealing with a fire that occurred near the border between Haiti and the Dominican Republic.

(45) Sample of Frenchified features *in Kreyòl swa*

"N ap vini ak lòt gwo pwen… nan pwen nan ***aktualite a****…antèman krèv k****èu****…jodi a, kat ajan ladwann ki mouri kankannen nan Malpas malgre yo te pase setèdtan ap mande èd. Pa gan kenn èd ki te vin sove yo anba flanm d****ufeu*** *nan komisarya* ***polis lan*** *sou Malpas..e kote* ***keu*** *yo konnen te genyen yon ensidan ant ajan sa yo ki spesyalize nan batay kont kontr****eu****bann ak moun ki t ap antre ak machandiz yo…e sou* ***fontyè a****. Bilan gen sis moun ki pèd****u*** *lavi yo e jan* ***keu*** *n konnen n. euuu otorite nan nivo ladwann nan soti nan silans li men nou pa ka di otan pou* ***gouvènman an.*** *Eee menm komisyon* ***ankèt lan*** *tou…eeee se pa klè* ***keu*** *gen ankèt k ap mennen pou detèmine egzakteman ki nivo responsiblite leta e s****eu****lon reponsab…li te di se fayit* ***leta a*** *youn nan responsab* ***ladwann nan*** *yè…j****u****ridik ki te di se fayit* ***leta a*** *ki lakòz kat j****èu****n sa yo pèd****u*** *lavi yo"*
(Liliane Pierre Paul, *Jounal katrè*, radio Kiskeya, 11/28/2018)

'We're coming with the big headlines…in the headlines…heartbreaking funeral today, four customs agents who died from the fire at Malpas although they had spent seven hours asking for help. No help came to rescue them from the fire flames at the police station in Malpas… and they knew there was an incident between these agents who are specialized in smuggling, and people who were trying to cross the border with merchandises. According to the report, six people lost their lives…and the customs officials broke their silence, but we can't say too much for the government. And the investigation counsel as well…it's not clear that there is an investigation being conducted to exactly determine the responsibility of the government, and according to one

official, he said that the failure of the government, an official at the custom said yesterday that it is the failure of the government which is responsible for these four young men losing their life.'

This sample constitutes an illustration for Frenchified features use in the media. Even though Pierre Paul uses HC exclusively to broadcast the news, her speech contains several Frenchified features (e.g. ***dufeu*** [d**y**f**ø**] 'fire'; ***jèun*** [ʒ**œ**n] 'young/youngster'), the complementizer ***keu***, and the nasalization of the determiner in non-nasal environments (e.g. *ankèt l**an*** [ãkɛtl**ã**] 'the investigation'; *polis l**an*** [polisl**ã**] 'the police force'). This sample illustrates how the use of Frenchified features might have been extended to monolingual speakers, who may have adopted it as a prestigious HC variety either from direct contact with bilingual speakers or through their frequent use in the media, by educators, government officials, employers, and educated family members and acquaintances.

5.4. The issue of codeswitching between *Kreyòl swa* and French

The use of codeswitching between HC and French in Haiti is a feature of the linguistic situation that has not been the object of empirical study nor much focused discussion. In fact, I am not aware of any study that has investigated the issue at all. This is due to the fact that codeswitching is exclusively found in bilingual speakers' speech and that when these speakers switch to HC, *Kreyòl swa* (another variety that is understudied) is the variety that they usually switch to. To observe codeswitching in the speech of bilingual Haitians, one should first assume that *Kreyòl swa* is fully comprehensible to all monolingual speakers because it is a variety of HC with some phonological variants specific to it, but with the same grammar, lexicon, etc. As for French, it shares much of the lexicon but has a completely different grammar. This is one of the main reasons why codeswitching has become increasingly useful in public settings in Haiti, as speakers consciously

or unconsciously switch from French to *Kreyòl swa* to communicate with all Haitians, particularly monolingual speakers. The samples in (46) and (47) below illustrate cases of codeswitching between French and *Kreyòl swa*. The one in (46) is a press conference presented by Mirlande Manigat, the widow of former Haitian president Leslie F. Manigat. She is a former candidate in the 2010 presidential election and a university professor and writer. This press conference took place in 2014 following the death of her spouse. The italicized characters are HC transcriptions and the non-italicized ones are French. The bold characters indicate cases of nasalization of *LA* in non-nasal environments while the features of *Kreyòl swa* are both in bold font and underlined.

(46) Code switching between French and *Kreyòl swa* during a press conference

« …remercier que la presse haïtienne a respecté le deuil. *Pèsòn pa mande m…pa telefone m pou mande m entè**r**vyou…e menm l**èu** te gon pakèt jou**r**nalis, jou Mateli te vin lakay mwen an. men*….pas d'question. Merci pour c'la. Pour cette discrétion. Deuxième raison, c'était donc pour parler des cours d'été…du RDNP. La troisième raison, mesdames, messieurs, c'est pour répondre à vos questions. *Gon jounalis ki mande m èsk**eu** m pa ta kab bay presizyon…poukisa prezidan Maniga mouri. Yo di anpil bagay. Yo di l mouri d**eu** kansè**r...**li mouri d**eu…** tout kalite bagay*. En faite, il y a trois ans il a eu un grave accident… fracture du col du fémur, *yo te oblije meton pwotèz*, ça bien marché, ensuite *li vin gon pwoblèm* au niveau de la prostate, ensuite *li te gen* des problèmes aux niveaux des voies digestives e… chikonngiya *fini avè l*. C'est-à-dire, *kò a te deja afebli*. *E m ap di sa pou nou pa di se chikonngiya ki t**u**ye l. Donk, daprè medsen, daprè spesyalis e kòm son bagay* qui est d'intérêt publique, m kapab di l. *Se pa… ou pa mouri d**eu** chikonngiya*. *Men l**èu** gon organis**m**… fè**bl**, se poutèt sa yo pale d**eu** timoun, yo pale d**eu** moun ki gen on se**r**ten laj. Maniga mouri a katr**eu**ven twazan, e s**ur**tou se pa tèlman katr**eu**ven twazan an, ò**r**nanis**m** nan te deja afekte. Donk, l**èu** fyèv la pran ni, li pa manje ankò d**u**tou, eksetera, eksetera, donk, e li mouri,* [***eu**r**eu**zman*]*, doul**èu**r m**u**sk**u**l**èr** yo te dimin**u**e, fò yo t ale ! Li mouri kalm**eu**man* dans son sommeil. »
(Press conference given by Mirlande Manigat on July 10, 2014 following the death of her spouse, Leslie F. Manigat).

'…thankful that the Haitian media had respected the period of mourning. Nobody had asked me for interviews….and even though there were a lot of journalists when Martelly came over to my house; however, no questions (were asked). Thank you for that…for the discretion. The second reason is to talk about the summer trainings…for the RDNP (Political party). The third reason, ladies and gentlemen, is to answer your questions. There's a journalist who asked me whether I couldn't provide more precision…why (the cause) of president Manigat's death. They say a lot of

things. There are rumors that he died of cancer...he died of…all kinds of things. In fact, three years ago he had had a serious accident…eeeuu a fracture at the neck of the femur, they had to put on an artificial leg. It had worked well…and then he started having a problem with his prostate, and then he also had problems around his digestive system as well as chikungunya which ended him. That is, the body had already been weakened. And I am saying that, so you don't report that it is chikungunya that killed him. So, according to doctors, according to experts and since it is something that is of public interests, I can say it. It's not…you don't die from chikungunya. But when you have a weak organism is weak, that's why they talk about children, and they talk about people of a certain age. Manigat died at age eighty-three, and its's just being eighty-three, the organs were already affected. So, when he started having fever, he stopped eating, etc, etc. so, and he died, fortunately, the muscular pains had already decreased, they had to go away! He died calmly in his sleep.'

This sample shows that bilingual Haitians are competent in both languages, and that switches between HC and French are frequently used during public speech events. When speaking HC, Madame Manigat only uses *Kreyòl swa*: *Yo di l mouri d**eu** kansè**r*** 'They said he died of cancer'. However, it is clearly seen that there are instances of intrasentential switching (see Hoffman 1991) that occur inside the same clause or sentences which contain elements of both languages: "*Donk, daprè medsen, daprè spesyalis e kòm son bagay* qui est d'intérêt publique, *m kapab di l...*" 'So, according to doctors, according to experts and since it is something that is of public interests, I can say it'…." Codeswitching between HC and French in the same speech event is very frequent and increasingly used during church services, at the Haitian parliament sessions, during presidential addresses, radio and television talk shows, debates, etc. It is worth noting that while the French utterances might be incomprehensible to many monolingual speakers, those that were produced in *Kreyòl swa* are perfectly comprehensible to all Haitians.

This sample leads to the question of why Manigat did not just use the Frenchified variety since it is comprehensible by all Haitians. My hypothesis is that perhaps bilingual and monolingual Haitians do not associate the same level of prestige to *Kreyòl swa* as they do to French. In other words, while monolingual speakers may associate a certain prestige to *Kreyòl swa* because it is

spoken by the educated bilingual elite (Valdman 2015: 75), bilingual Haitians (who also speak French) continue to associate more prestige to French, which they use either to elevate the level of formality during public events or just to signal sophistication (Buchanan 1979). It may be what causes several cases of codeswitching among bilingual speakers, particularly in sample (47) which illustrates another case of codeswitching involving *Kreyòl swa* and French during a political radio talk show called *Haiti Débat* presented by Gary Pierre Paul Charles at Radio Scoop FM. Unlike Manigat's press conference in (46), this radio talk show is exclusively broadcast in HC, where callers usually speak HC. The data sample includes Gary Pierre Paul's introduction of the program.

(47) Code switching between French and Kreyòl swa during radio talk show

« Bonsoir *tout moun, m trè kontan jodi a la a pou m trouve w, zanmi ki branche an ayiti.* [*Aletranje*], dans les dix départements*, donk euuu*[10] *zanmi k branche n nan tout ti kwen nan rakwen k ap tande emisyon an kòm Dab ki toujou suiv nou,* c'est notre quatrième sortie*. Nou gen Marco k ap fè man**èu**v**r** tekno yo, donc, euuu* je ne suis pas seul à la maison*.* C'est sûr que notre ainé, Il va arriver dans quelques secondes*.* Notre Marco TGV va rentrer à grande vitesse*, sans fòs kote.* Donc encore une fois *nou nan kan pa n nan nou di bonswar a tout moun epui euuu n ap sal**ue*** notre frère *Val, Bonswar! Nou pral gade ansanm euu. **Aktualite an**, ou wè l?* En faite*,* depuis hier *gen yon* situation d'panique génerale *ki euu ki ap pase nan Pòtoprens, nan kapital la. E ki mete anpil aktivite* au relanti*, ki bay anpil k**èu** sote, Ganpil moun ki kouri rantre anba kabann pask**eu** fenomèn…chak grenn moun deside se yo menm ki pou fè e defè nan **peyi an**, apwend k**eu** nan chak zòn gen d**eu** moun ki montron drapo e drapa ensek**u**rite **an** pa s**u**spann limenm, monte nan peyi **an**. E l**èu** l monte, li difisil pou l de…poul desann puisk**eu** polis nasyonal mal**eu**r**eu**zman echwe nan pl**u**zy**èu** operasyon k**eu** yo fè, e gon gran defi k ap tann yo la a nan* **début d'année an** *kote **keu** gon sit**u**asyon trè konplike ki rive nan **peyi an*** [hier après- midi, hier soir][11]. »

'Good afternoon everyone, I am glad to be back with you again, friends who are plugged in, friends who are listening overseas, around all the ten departments, and our friends who are connected in every corner listening to the radio show like Dab who always follows us, it's our fourth launching (program). We have Marco who's in charge of the tech, so, *uhhhhh* I am not alone in the house. We are sure that our older (senior in position) is going to arrive in a few seconds. Our Marco TGV is entering at top speed, with no ambivalence (behavior). So, once again we are in our own camp, we're saying good afternoon to everyone and then euuu we are greeting our brother Val, good afternoon! We're going to look together *euuu* at the news, you see? In fact, since yesterday in

[10] This is a marker of hesitation.

[11] While I transcribe *hier après-midi* 'yesterday afternoon*, hier soir* 'last night' as French, there is no justification for not transcribing them as *kreyòl swa*.

general there have been a situation of panic all over Port-au-Prince, at the capital, and which slowed down a lot of activities…. which is frightening. There are many people who ran and hid under their beds because of the phenomenon in which each person decides to do whatever they want in the country…to a point that in each area (of the country) there are people who raise a flag, and the flag of insecurity never ceases of being lightened, of being raised high in the country. And when it is raised, it's difficult to take it down since the national police force, unfortunately, fails in several operations conducted; and there is a big challenge waiting for them at the beginning of the year where there is a very complicated situation in the country that occurred yesterday afternoon… last night.'

Although the show was advertised as being broadcast in HC, there were various instances of French sentences (e.g. *C'est notre quatrième sortie*. 'This is the fourth launching of our program'). Besides these French sentences, the Frenchified Creole was understood by all Haitians, including rural and monolingual speakers. In fact, if I removed the French sentences, sample (47) would look very similar to Liliane Pierre Paul's sample in (45). That is, the remaining sentences would contain front rounded vowels, post-vocalic (r) and the use of *LÃ* in non-nasal environments. The sample from the press conference (example 46) appears to involve a much more complex case of codeswitching. That is, the removal of French sentences would not be sufficient to change it into a *Kreyòl swa*, hence fully comprehensible by monolingual Haitians. However, example (47) contains instances of intersentential codeswitching, that is, the kind of codeswitching that occurs between clause or sentence boundaries where each clause or sentence is in one language: "*Nou gen Marco k ap fè man**èu**v**r** tekno yo, donc, euuu* je ne suis pas seul à la maison*."* 'We have Marco who's in charge of the tech, so, I am not alone in the house.'

Furthermore, it appears that *Kreyòl swa* is not limited to only post-vocalic (r). For instance, Manigat's speech in example (46) included a consonant cluster [sm] (e.g. *organi**sm** nan* 'the organism') which, unlike final /s/, does not occur in monolingual HC. The fact that *organism* was followed by the HC definite article nan suggests that the word has been borrowed from French and

used in the HC's NP. This example is similar to the cases in which the determiner form [la] is produced following words ending in a post-vocalic (r), and [a] when the post-vocalic consonant is absent (e.g. *ministè a* [ministɛja] versus *minister la* [ministɛrla] 'the ministry'). These suggest that the HC language applies the same morphophonological rule to new French words that have been introduced into HC by bilingual speakers. In that sense, these words have become creolized instead of being decreolized.

To summarize, my goal in this section was not to provide an analysis of either codeswitching or *Kreyòl swa*, but instead to emphasize the importance of examining the HC varieties spoken in Haiti. This approach could provide significant insights on the role of *Kreyòl swa* which functions not as a decreolized version of the language resulting from contact with French but as a systematic and integrated sociolinguistic variety of HC. In contemporary Haiti, many children frequently get reprimanded or corrected by parents and teachers for not using the features of *Kreyòl swa* when communicating, particularly in public, as expressed in these terms: "*Pitit la pa gen bon diksyon menm menm*" 'The child does not articulate well at all'. I have often observed Haitian youngsters reading the HC Bible at church as they stumble over the [i] in *Jezi* [ʒezi] 'Jesus', which they pronounce *Jezu* [ʒezy]. Some speakers explicitly write Frenchified variants in texts if they have to deliver a speech in HC.

I view Frenchified HC or *Kreyòl swa* as a variety of HC that contains a limited set of features similar to those in example (45). These features include post-vocalic (r), front rounded vowels and nasalization of *LA* in non-nasal environments. While the term Frenchified refers to French, not all the features can be traced back to French. The use of *LÃ* in non-nasal environments constitutes one of them. Diachronically, these Frenchified features might have been a part of the phonological system of many Haitians (including monolingual speakers) through their regional

dialect. For instance, in the Northern HC variety (also known as Capois), which is the most marked regional variety spoken in Haiti, it has been shown that this variety contains post-vocalic (r) and front rounded vowels (Étienne 1974; Valdman 1978, Valdman, Villeneuve & Siegel 2015). In the Capois possessive construction for 'my sister' *sèram* there is an /r/ which is not found in *papan m* 'my father'. Therefore, Valdman (2015) posits the presence of a post-vocalic (r) (which presumably comes from colonial French), such as in the word *sè*^{r} [sɛ^{r}] 'sister' and absent in *papa* [papa]' father'. Given that my data were collected from speakers of the central and southern regions of the country, no speakers of Capois were included in my samples. Future research would have to compare the features of *Kreyòl swa* produced by Capois speakers to those of the non-Capois speakers in order to determine whether there is a significant difference between the two speaker groups.

5.5. Limitations

Although one of the main goals of using different data collection tasks was to study other situational factors that might affect the nasalization of the determiner in non-nasal environments in HC, this study does not provide a complete picture of these assessments. I have not, for example, found significant relationships from the pair interview data because the sample size is too small. Furthermore, an analysis of casual group conversations (e.g. jokes, play and games, etc.) that more closely reflect vernacular Haitian Creole speech might reveal different results. There are other factors that affect the size of the data sample. For instance, cultural norms, such as turn-takings and group conversation protocol in which one subject speaks significantly more than the other. To ensure a representative distribution of the samples for each subject during the pair interviews, more time is required.

With respect to the study on *Kreyòl swa*, there is a lack of prior research study on the topic, and a lack of available and reliable data. Only a handful of studies (e.g. Fattier-Thomas 1984; Valdman 1991; 2015) have discussed it as a variety of HC. In other cases, this variety of HC might simply be miscategorized as a decreolized HC or overlooked as HC.

The issue of collinearity also constitutes significant challenges. I have identified two elements at the source of this problem. First, the linguistic environment where nasalization never occurs (i.e. low and central) refers to the same vowel [a], which is responsible for the inability to produce accurate predictions for backness. Second, more nasalization occurs with front vowels in CV, while more nasalization occurs with back vowels in CVC. This difference helps explain more of the effect of syllable structures rather than that of backness. The issue of collinearity could be resolved by addressing interaction between variables by coding differently for variants that are contained in more than one variable.

5.6. Conclusion

Just as in any non-creole communities (e.g. English speakers, Italian speakers, etc.), speakers' speech varies depending on their social status. Educated Haitians all over the country have been communicating with each other using Creole not just with their peers but also with monolinguals and even those who are illiterate. Let's say, Father X is an educated priest from Cap Haitian who is communicating with an educated colleague who is also from the same region. Their speech may include features from *Kreyòl swa* and Capois, i.e., the regional variety that would reflect their social status and their regional identity. Based on Valdman, Villeneuve & Siegel (2015), Father X is more likely to use Capois variants with fellow Capois speakers (including monolinguals) and switch to standard HC (which may include Frenchified features) when communicating with non-

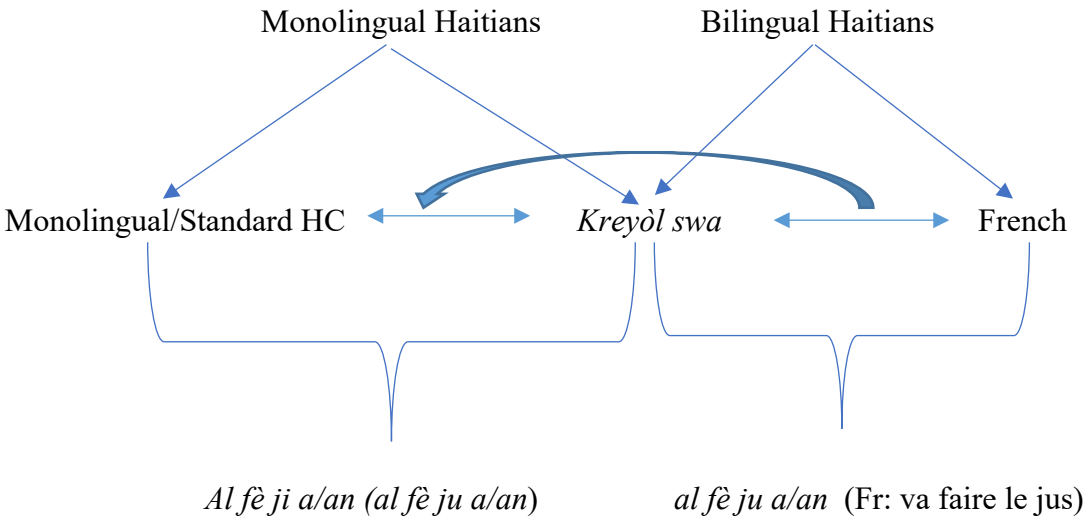
Capois speakers. In addition, Father X may switch between French and *Kreyòl swa* when he perceives the situational context to be appropriate (e.g. formality). The use of French can also be triggered by written texts (e.g. liturgy, laws, decrees, etc.).

The HC variety spoken by any educated working-class Haitians is very similar to that spoken by the Haitian elite because these two speaker groups' speeches are mostly influenced by their level of education and bilingualism and not so much by the social class they belong to. When talking to Haitians, their speech does not indicate wealth and social class. It indicates education and bilingualism. The linguistic difference in HC spoken by these two speaker groups is rather the frequency with which the educated working-class speaker's speech uses monolingual HC features compared to an educated Haitian who belongs to the elite. Also, it is worth pointing out that no speaker can be characterized as belonging to a single social category. In today's Haiti, there are many young college graduates who belong to the impoverished Haitian masses. Because of high unemployment rates they live in poor neighborhoods with their uneducated parents. These college students are frequently on the *beton* 'on the streets' protesting along with the masses against unemployment, the cost of living in the country, and for better conditions in the public sectors. However, while their socio-economic status may be associated with the mass, they also belong to the group of educated Haitians whose speech may reflect that of the educated elite and those in power. The same speakers' speech could vary between monolingual and bilingual HC varieties in different situational contexts.

While monolingual speakers may not Frenchify as frequently as bilingual speakers, this study suggests that they are familiar with Frenchified forms and may even use them in formal contexts just like French could be used by bilingual speakers. So, while I do recognize that the Frenchified features may have been introduced by the bilingual speakers, it is a bit exaggerated in

today's Haiti to claim that *Kreyòl swa* only reflects the speech of educated bilingual speakers and the Haitian elite. Below in figure 5.1, I present a model illustrating linguistic variation by monolingual and bilingual Haitians when saying: "go make the juice". The left-hand side of the model represents monolingual speakers and the right, bilingual speakers. Monolingual Haitians could use either monolingual HC or *Kreyòl swa* when producing the sentence: In monolingual HC, the word 'juice' is pronounced with the front unrounded vowel [i]: *ji* [ʒi]; in *Kreyòl swa,* it is produced with a front rounded vowel '*ju*'[ʒy] . In addition, there can be oral-nasal variation in the determiner: *ji a, ji an, ju a, or ju an* 'the juice'. For their part, bilingual Haitians are predicted to use the *Kreyòl swa* more frequently. That is, they are more likely to use the front rounded vowel [y] followed by the determiner [a] or [ã]: *ju* a [ʒyja] or *ju an* [ʒyjã] 'the juice. In my results I found that although the bilingual speakers did Frenchify more, monolingual speakers showed a higher rate of nasalization in the determiner whenever they used the Frenchified features. This means that *ju an* [ʒyjã] is more likely to occur than *ji an* [ʒijã] among monolingual speakers.

Fig 5.1 Variation between Frenchified and non-Frenchified HC Varieties



The model illustrates the range of varieties used by monolingual and bilingual Haitians. As the arrow suggests, some bilingual Haitians do switch to monolingual HC variety at times. Those who are raised in monolingual families and who have maintained stronger ties with them may use the monolingual features use monolingual HC more frequently than those who are surrounded by educated family members and bilingual social networks. This suggests that this model disagrees with the view that educated Haitians can recognize monolingual HC but are not able to produce it (Schieffelin and Doucet 1994: 179). Further research will have to determine whether it is the case; and if so, to what extent. Another significant prediction that the model makes is that Haitians do not necessarily have to be proficient in French to use *Kreyòl swa*. Therefore, I strongly advise against the use of *Kreyòl swa* as a criterion for identifying bilingual speakers in Haiti. Bilingualism can and should only be determined from speaker's proficiency in French and evidence from French and HC codeswitching.

I would like to end this chapter and dissertation by addressing the assumption that *Kreyòl swa* is "bad Creole". At a time in which Haitians' positive attitude toward HC continues to rise, the use of Frenchified Creole or *Kreyòl swa* as a prestigious variety may contribute to promoting the ongoing effort by linguists, educators, government officials, and advocates to effectively use the language as an integral part of Haitian life, particularly as the language of education. Therefore, I view any attempt to label this HC variety as an example of decreolization or broken French to be ill-conceived. Unlike French, *Kreyòl swa* is accessible and comprehensible to all Haitians (including monolingual, rural and urban), though their frequency of use may vary based on social factors, speaker's style and the level of formality. A variationist sociolinguistic approach to HC is

better able to determine the correlation between speakers' social factors and speakers' use of Frenchified features in HC.

Appendix

A. Individual Interview Questions for Urban Subjects

Kesyon an Kreyòl	**English Translation**
1. *X nan ki lane ou fèt?*	1. X when were you born?
2. *Ki kote ou fèt?*	2. Where were you born?
3. Ki kote manman ou ak papa ou fèt?	3. Where were your father and your mother born?
4. *Ki kote ou rete kounye a?*	4. Where do you live now?
5. *Ou fè ti deplasman souvan?*	5. Do you travel often?
6. *Ki travay /pwofesyon ou? Ki travay/pwofesyon paran ou?*	6. What do you do for a living? What did your parents do for a living?
7. *`Èske ou ale lekòl?*	7. Do you go to school?
8. *Ki kote ou al lekòl?*	8. Where do you go to school?
9. *Ki klas w ap fè?*	9. What grades are you in?
10. *A kilè ou leve pou ou ale lekòl?*	10. At what time do you get up to go to school?
11. *Lekòl la se yon lekòl kongreganis? piblik oswa prive?*	11. Is your school a congregational, public or private school?
12. *Ki jan lekòl la rele?*	12. What is the name of your school?
13. *Kijan ou ale lekòl la?*	13. How do you go to school?
14. *Ki matyè ou pi renmen nan lekòl la? Poukisa?*	14. Which subjects do you like the most? Why?
15. *Kisa ou fè lasemenn?*	15. What is your schedule like on weekdays?

16. *Ou marye? Kijan nou te rankontre*?	16. Are you married? How did you meet each other?
17. *Ki kote ou te ye lè tranblemandtè a?*	17. Where were you when the earthquake happened?
18. *Ou te gen fanmi ki te viktim?*	18. Did you have any family member that was victim?
19. *Etan sitwayen ayisye, kisa ou ta swete pou peyi a nan 10 lane k ap vini yo? Poukisa?*	19. As a Haitian citizen, what is your hope for the country within the next ten years? Why?
20. *Ki pi gwo pwoblèm nan peyi a ou panse ki ta bezwen rezoud vit e prese?*	20. What are the most urgent problems that need special attention in the country?
21. *Èske ou wè kèk pwogrè ak kèk bagay pozitif ki fèt andedan peyi a depi apre tranblemandtè a?*	21. Have you seen some positive progress and improvement happening in the country ever seen the earthquake?
22. *Ou rete Pòtoprens, pa vre? Ki difikilte ou remake ki genyen nan kapital la ou panse ki ta dwe rezoud (egzanp, trafik, ensekirite, fatra, machann nan lari, konstriksyon anachik)*	22. You live in the Metropolitan area, right? What are some of the difficulties that you encounter need to be addressed in Port-au-Prince (e.g. traffic, insecurity, litter, unsafe construction, street vendors, etc.)
23. *Ki bon restoran, otèl ak bon ti kote moun kapab pran ti detant yo nan peyi a? Ki pi move kote ou ta konseye yon moun pa ta dwe ale ditou?*	23. What are some of the best restaurants, hotels and attraction places that one can find in Haiti if one needs to relax and have a good time? What are the worst places to avoid? Why?

24. *Kisa ou panse de pwoblèm edikasyon an Ayiti? Èske sitiyasyon an amelyore? Poukisa? Ki pi gwo pwoblèm ki ta bezwen rezoud nan sektè a?*	24. What do you think about the education system? Is it improving? Why? Why not? What are some of the main problems that may need to be addressed in that sector?
25. *Kisa oumenm ak fanmi ou konn abitye fè lè nou pap travay/konje/vakans?*	25. What do you and your family usually do on your days off/vacation?
26. *Ki pi gwo pwoblèm yon moun k ap fè biznis an Ayiti kapab rankontre jounen jodi a?*	26. What are some of the challenges for doing business in Haiti nowadays?
27. *Èske ou wè gen jefò ki fèt nan sektè komès la nan de dènye ane yo?*	27. Have you seen strength in that sector over the past couple of years?
28. *Ou konn bay blag/tire kont? [ou vle eseye ?]*	28. Can you tell jokes/riddles? [Do you want to try?]
29. *Ki pi bèl pwovèb ayisyen ou konnen? Kisa yo vle di?*	29. What are some of you favorite Haitian proverbs? What do they mean?
30. *Ou ka bay yon egzanp? Poukisa pwovèb se yon bagay ki gen anpil enpòtans nan kilti ayisyèn?*	30. Can you think of an example? And why proverbs are important in the Haitian Culture?
31. *Ou vwayaje anpil? Konbyen fwa pa ane?*	31. Do you travel a lot? How many times in one year?
32. *Ou genyen yon machin/kamyon?*	32. Do you own a car/truck?
33. *Lè ou vwayaje konsa ki kote ou konn ale? aletranje?*	33. When you travel, where do you usually go to? Overseas?

B. In-Pair Interview Questions

Urban Speakers

1. *Kijan nou rele?*	1. What are your names?
2. *Ki konpayi telefòn nou genyen? Poukisa se li nou chwazi?*	2. Which phone companies do you guys have? Why did choose this company?
3. *Kisa moun ka fè pou detann yo nan zòn nan?*	3. What can people do for fun in the neighborhood?
4. *Kimoun ki majistra zòn nan? Kisa nou panse de yo?*	4. Who's the mayor of the area? What do you think of them (i.e. city council)
5. *Ki moun ki bon nan foutbòl nan zòn nan?*	5. Who's is the best soccer player in the area?
6. *Ki pi bon lekòl ki genyen nan zòn nan? Nan ki klas lekòl sa yo rive?*	6. What are the best schools in the area? What grade levels are they?
7. *Ki lopital ki pi pre nan zòn nan?*	7. Which hospital is the closest to the neighborhood?
8. *Kilès nan de bagay sa yo ki fèt pi souvan nan zòn nan: antèman oswa maryaj? Daprè nou kisa ki lakòz sa?*	8. Which of the two things happen more often: funerals or weddings? According to you, what causes that?
9. *Si m ta bezwen manje yon bon manje nan ki restoran pou m ta ale? Poukisa*?	9. If I need to find some very good foods, where would you recommend that I go?
10. *Nou konn tire kont? Bay blag?*	10. Do you guys know any riddles? Jokes?

C. In-Pair Interview Questions for Rural Subjects

Kesyon an Kreyòl	**English Translation**
1. *Ki kote ou fèt? Ki kote?*	1. X when were you born? Where?
2. *Ki kote manman ou ak papa ou fèt?*	2. Where were your father and mother born?
3. *Ki kote ou rete kounye a?*	3. Where do you live now?
4. *Ou fè ti deplasman souvan?*	4. Do you travel often?
5. *Ki kote ou konn ale konsa?*	5. Where do you usually go?
6. *Konbyen tan ou pran pou rive nan vil la?*	6. How long does it take you to make it to the city?
7. *Ki rezon ki konn fè ou ale lavil?*	7. What are the reasons why you go to the city?
8. *Ki travay ou fè menm? E paran ou ki travay yo fè?*	8. What do you do for a living? What did your parents do for a living?
9. *Ou ale lekòl?*	9. Do you go to school?
10. *Ki kote ou ale lekòl?*	10. Where do you go to school?
11. *Ki klas w ap fè?*	11. What grade are you in?
12. *A kilè ou konn leve lèmaten lè ou pral lekòl?*	12. At what time do you get up to go to school?
13. *Ki non lekòl la?*	13. What is the name of your school?
14. *Kisa ou renmen/pa renmen nan lekòl la?*	14. What do you like/dislike about the school?
15. *Kijan w al lekòl?*	15. How do you go to school?

16. *Ki matyè ou pi renmen nan lekòl la? poukisa?*	16. Which subjects do you like the most? Why? Why not?
17. *Kisa ou fè nan senmèn nan? Kisa ou renmen fè lè ou nan vakans?*	17. What is your schedule like on weekdays? What do you like to do when you during school break?
18. *Ki kote ou te ye lè ranblemandtè a? What were you doing?*	18. Where were you when the earthquake happened? What were you doing?
19. *Ou konn bay blag? Tire kont?*	19. Can you tell jokes/riddles?
20. *Kisa ou ta renmen vini lè ou fini lekòl?*	20. What would you like to become after you complete school?
21. *Ki kalte manje ak lelvaj moun fè nan zòn nan?*	21. What do people usually do/ grow in the area?
22. *Ki sen Patron nou fete nan zòn nan? Ki dat?*	22. Which Saint Patron does the village celebrate? When?
23. *Ki kalte aktivite ki konn genyen pandan sènmèn fèt patwonal la?*	23. What kind of activities do people do during the Saint Patron week?
24. *Èske nou konn abitye gen pwoblèm ensekirite nan zòn nan? Vòlè?*	24. Does the area have any insecurity problem? Thefts?
25. *Gen anpil legliz nan zòn nan? Ki denominasyon yo?*	25. Are there a lot of churches in the area? What denomination?
26. *Ki kote ou te ye lè tranblemandtè a?*	26. Where were you when the earthquake happened?

27. *Eske jan peyi a ye kounye a se konsa l te ye lontan lè w te timoun? Sinon, poukisa?*	27. Is the country the same as it used to be in the past? If not, why?
28. *Gen anpil moun ki di timoun jodi a pa respekte granmoun, kisa ou panse nan sa?*	Many people claim that children have less respect for adults, what do you think?
29. *Eske lekòl ak paran dwe kontinye bat timoun kòm pinisyon? Poukisa?*	29. Should school continue to give punish/ whooping to pupils or not? Why?
30. Ki pi bon manje ayisyen nou genyen? Kilès ou pi renmen?	30. What are some of the best Haitian foods that you know of? Which one do you like the most?
31. Ou renmen espò? Ki espò ou pi renmen? Ki jwè ou pi renmen? Poukisa se li ki meyè jwè pou ou? Poukisa se ekip sa a ou pi renmen?	31. Do you like sport? What is your favorite sport? What is your favorite team player? Why is your favorite team/player? Why do you like that team?
32. Si out e yon lidè politik ki pwoblèm ou ta chache mwayen pou rezoud nan zòn nan? Poukisa?	32. If you were a political leader what are some of the main problems you would try to solve in the area? Why
33. Kisa ou panse de lang Kreyòl la ak lang franse a? Eske li ta bon pou tout moun konn pale ak ekri tou de?	33. What do you think of the Creole and French languages? Would it be a good thing if everyone could read and write both languages?

D. In-Pair Interview Questions

Rural Subjects

1. *Kijan nou rele?*	1. What are your names?
2. *Ki konpayi telefòn nou genyen? Poukisa se li nou chwazi?*	2. Which phone companies do you guys have? Why did you choose this company?
3. *Kisa moun ka fè pou detann yo nan zòn nan?*	3. What can people do for fun in the neighborhood?
4. *Kimoun ki majistra zòn nan? Kisa nou panse de yo?*	4. Who's the mayor of the area? What do you think of them (i.e. city council)
5. *Ki moun ki bon nan foutbòl nan zòn nan?*	5. Who's is the best soccer player in the area?
6. *Ki legliz ki gen nan bouk la?*	6. What kind of churches are there in the area?
7. *Konbyen lekòl ki gen nan zòn nan?*	7. How many schools are there in the area?
8. *Nan ki klas lekòl sa yo rive?*	8. What grade levels are these school?
9. *Ki lopital ki pi pre nan zòn nan?*	9. Which hospital is the closest to the area?
10. *Kijan nou fè lè gen yon moun ki mouri nan zòn nan?*	10. What do people usually do when there is someone who dies in the area?
9. *Si m ta bezwen yon fanm say oswa yon doktè fèy, kimoun nou t ap konseye m rele? Poukisa?*	If I were to look for a mid-wife or a traditional doctor, who would you recommend? Why?
10. *Nou konn tire kont? Bay blag?*	Do you guys know how to play riddles? Or telling jokes?

E. Data Elicitation

1. Jenou yo ap fè m mal anpil	'The knees hurt a lot'
2. Mete joumou yo nan soup la.	'Put the pumpkins in the soup'
3. Papa m fin plante pitimi yo.	'My father finished planting the millet.'
4. Nou vlope peni yo nan yon sak.	'We wrapped up all the pennies in a sack'
5. Jak mennen zanmi yo al wè manman l.	'Jack took his friends to go see his mother'
6. Li peye machann nan zanno yo deja?	'Did she already pay the vendor for the earrings?'
7. Mo yo pa fè papa a byen ditou.	'The words didn't please the father at all.'
8. Lanmò yo vini sanzatann.	'The deaths came unexpectedly'
9. Se pa ti pase ane yo pase vit, non!	'The years go by so quickly'
10. Mèt la ap bay kanè yo vandredi .	'The teacher will distribute the report cards on Friday.'
11. Kote mèt kana yo?	'Where is the ducks'owner?'
12. Sèvi ak mayi a, men pa jete ma yo.	'Use the corn, but don't throw the residue away'
13. Kale anana yo fè ji ak yo	'Peel the pineapples and make juice with them'
14. Sinema yo pa louvri jodi a	'The cinemas aren't open today'
15. Egzema yo gaye nan tout pye l.	'The rashes have spread all over his foot'
16. Kounouk yo pa menm ka pran twa moun	'The shacks cannot even fit three people'
17. Pa kite mouch yo poze sou manje a	'Do not let the flies come and rest on the food'
18. Doktè klinik yo nan grèv.	'The doctors working at the clinics are on strike'
19. M lave chemiz yo de fwa deja jodi a.	'I've already washed the shirts twice today.'
20. Gwo tenis yo pa gen lasèt.	'The big tennis shoes don't have any laces'
21. Al pote mòp yo bay papa ou.	'Go take the mops to your father.'
22. Kannòt yo koule ak pwason ladan yo	'The small boats sank with fish sitting in them.'

23. Mèt yo mande pou tout paran chita.	‘The teachers ask that every parent sit down.’
24. Grannèg yo pa melanje ak malere	‘The rich ones do not mix with the poor.’
25. Linèt yo fè ou byen.	‘The glasses look nice on you’
26. Se vann li vann almanak yo	‘She sold the calendars.’
27. Retire nat yo atè a.	‘Remove the mats off the floor.’
28. Pitit la sal nap yo ak penti a.	‘The child stained the tablecloths with the paint.’
29. Li manje marinad yo trapde.	‘He ate the fritters very quickly.’
30. Nas yo poko pare pou al peche pwason.	‘The fishing nets aren’t ready to be used for fishing.’
31. Wete kalalou yo nan chodyè a epi fri yo.	‘Take the okras off the cooking pan and fry them.’
32. Yo fin koupe tout pye mapou yo	‘They have cut off almost all the ceiba trees’
33. Tout ri yo fin kraze.	‘All the roads are (now) broken.’
34. Mete tapi yo atè a anvan ou benyen.	‘Put on the rugs on the floor before you shower’
35. Maladi yo pa maladi Bondye	‘The diseases aren’t from God (unnatural)’
36. Bòkò yo cheran anpil.	‘The vodou priests are very expensive.’
37. Pa jwe ak kouto yo!	‘Don’t play with the knives.’
38. Malfektè yo pran mezi ti kòb la.	‘The villains stole all the money.’
40. Se lèt sa a ki bon pou ti bebe yo.	‘This milk is good for the little babies’
41. Pote manje yo ba li!	‘Take the food to him!’
42. Gita yo pa sonnen byen ditou.	‘The guitars don’t sound well at all.’
43. Pa jete fatra yo nan lari a, souple!	‘Please don’t drop litter on the street.’
44. Ba yo sèch. Ou mèt plwaye yo!	“The sport socks are dry. You may fold them!”
45. Nou sere tout rekòlt nou nan galata yo.	‘We saved all our crops in the attics.’
46. Tout lafanmi te kanpe dèyè kòbya yo.	‘The whole family was standing behind the hearses’

46. Pote boul yo vin mete sou gazon an	‘Bring the bowls and leave them on the field’
47. Leta resi fini wout yo.	‘The government finally completed these roads.’
48. Zandolit yo itil. Pa touye yo!	‘The lizards are useful. Don’t kill them!’
49. Lè maten se woulib yo ki sove m.	‘In the morning the car rides really save me.’
50. Bourik yo pa ka pote chay lou.	‘The donkeys cannot carry heavy loads.’
51. Se kalòt yo ki fè nsye depale konsa, wi!	‘The slaps caused him to talk nonsense.’
52. Lekòl ap fèmen bonè ane sa a.	‘The schools are closing early this year’
53. Li achte wòb yo men li pa janm mete yo.	‘She bought the dresses but never wore them’
54. Mete gwo malèt yo nan kòf machin nan.	‘Put the big suitcases in the car trunk’
55. Gèp yo mòde l nan tout figi	‘He got bitten by the bees all over her face’
56. Manman ti makak pa nan jwèt, non!	‘The mother of the little monkeys doesn’t play’
57. M ret tann tap tap yo, yo pa janm vini.	‘I waited for the buses, but they never showed up.’
58. Msye yo fin fè zak yo, epi yo bwaze.	‘After the men committed the crimes, the took off ‘
59. Tab yo paka rete nan chemen an konsa.	‘The tables can’t stay in the exit area.’
60. Patat yo dous epi yo bèl.	‘The potatoes are sweet and look really nice.

F. Fillers

1. ***Machin yo*** *anpàn*.	‘The cars broke down.’
2. *Yo pa bay* ***ti chen yo*** *pa manje depi twa jou*.	‘The puppies have not been fed for three days.’
3. ***Dan yo*** *ap fè m mal anpil.*	‘The teeth (ache) hurt a lot.’
4. *Se* ***bonbon yo*** *li voye jete*.	‘He threw the cookies away.’
5. ***Bourik Antwàn yo*** *malad.*	‘Antoine’s donkeys are sick.
6. *San an sikile nan* ***venn yo***.	‘The blood circulates through the veins.’

7. *Nou pral priye **sen yo**.* ‘We are going to pray the saints.’

8. *Poukisa ou trase **wonn yo** atè a*? ‘Why did you trace the circles on the ground?’

9. *Pote **kann yo** vini mete la*. ‘Bring the sugar canes and set them over here.’

10. *Li touye **kretyen vivan yo.*** ‘He killed the human beings (people).’

11. ***Moun yo** poko prale* ‘The people are not leaving yet.’

12. *Li rele tout **bòn yo**.* ‘She called all the maids’

13. *Ala bèl tèt **mòn yo** bèl!* ‘The top of the mountains is so pretty.’

14. *Fèmen **telefòn yo** anvan nou kòmanse*. ‘Turn off the phones before I start’

15. *Sispann kouri nan **ravin yo** pou pa tonbe*. ‘Stop running by the ravines so you don’t fall’

16. *Leve **timoun yo** pou yo manje.* ‘Wake the children up to eat.’

17. ***Pon yo** sekwe lè move tan*. ‘The bridges shake when there are storms’

18. *Louvri pòt la pou **medam yo**.* ‘Open the door for the ladies.’

19. ***Bonbon yo** gate*. ‘The cookies went bad.’

20. *Li jete **zam yo** epi l kouri*. ‘He threw the guns away and ran away.’

21. ***Machin yo** nan wout ap vini*. ‘The vehicles are on their way.’

22. *Mete rad sal yo nan **doum yo***. ‘Put the dirty clothes in the drums.’

23. ***Bonm yo** eklate byen fò*. ‘The bombs went off with a loud noise.’

24. ***Lavant yo** pa bon jodi a*. ‘The sales have not been good today.’

25. ***Van yo** soti tout kote*. ‘The winds came from everywhere.

26. ***Lam yo** gen bon gou.* ‘The bread fruits are tasty.’

27. *Li konstwi **tonm yo***. ‘He has built the tombs.’

28. *Li bay sache **san yo** deja*. ‘He already gave the blood packs away.

29. *Biwo **dwàn yo** fèmen jodi a*. ‘The customs are closed today.

30. *Peze bouton yo anvan ou antre*. ‘Press the buttons before you enter’

G. French Proficiency Test

A. Sujets ruraux	**A. For rural subjects**
1. Comment vous appelez-vous?	1. What is your name?
2. Vous avez de la famille, des enfants? Si oui, combien vous en avez?	2. You have family, children? If so, how many of them do you have?
3. Vous avez du bétail?	3. You have livestock, cattle?
4. Qu'est-ce que vous cultivez dans la région?	4. What produce do you grow in the region?
5. Quels moyens de transport vous utilisez quand vous vous déplacez ou pour transporter vos denrées d'un endroit à un autre ?	5. What means of transport do you use when you move or to transport your goods from one place to another?
6. Qu'est-ce que vous avez comme passe-temps ?	6. What do you do as a hobby?
7. Quels sont les problèmes majeurs auxquels les résidents de cette localité font face?	7. What are the major problems that the residents of this community face?
8. Qu'est-ce que vous souhaiteriez que les officiels du gouvernement fassent pour apporter une solution efficace et durable à ces problèmes?	8. What do you hope government officials do to bring an effective and lasting solution to these problems?
	9. What would you do if you were a government official? And why?
	10. What do you think about life in the cities?

9. *Qu'est-ce que vous feriez si vous étiez un officiel du gouvernement? Et pourquoi?*
10. *Qu'est-ce que vous pensez de la vie dans les villes?*

A. Sujets urbains

1. *Comment vous appelez-vous?*
2. *Vous avez de la famille dans les villes de province?*
3. *Qu'est-ce que vous faites comme passe-temps?*
4. *Qu'est-ce que vous faites avec votre argent?*
5. *Vous aimez le football? A votre avis, qui est le meilleur joueur de foot? Pourquoi?*
6. *Quels sont les problèmes majeurs auxquels les résidents de cette localité font face?*
7. *Quels genres de programmes aimez-vous regarder à la télé?*

B. For urban subjects

1. What is your name?
2. You have family in the provincial towns?
3. What do you usually do as a hobby?
4. What do you do with your money?
5. Do you like soccer? In your opinion, who is the best soccer player? Why?
6. What are the major problems that the residents of this community face?
7. What kinds of programs do you watch on TV?
8. Could you make a summary of one of your favorite films/TV soap operas?
9. What do you want to become in the future?
10. Tell me a little bit about the discipline in the school system in Haiti?

8. *Pourriez-vous me faire le résumé d'un de vos meilleurs films/télénovelas?*
9. *Qu'est-ce que vous voulez faire comme métier plus tard?*
10. *Parlez-moi un peu du système de discipline dans les écoles en Haïti?*
11. *Qu'est-ce que vous aimeriez que le gouvernement fasse pour encadrer les agriculteurs?*

11. What would you like the government to do to support the farmers?

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BIOGRAPHY

- Born in Port-au-Prince, Haiti
- Naturalized U.S. Citizen & Resident

LANGUAGE SKILLS & TRAINING

- Native speaker of Haitian Creole, and fluent in French and English
- Speak, read, and write Haitian Creole, French, and English
- Haiti's Language and Culture: Integrating Technology into Teaching workshop, Florida International University (May 2013)

EDUCATION

- **Ph.D. in Linguistics** at Indiana University, USA July 2019
- **Ph.D. Candidate in Linguistics** at Indiana University, USA (Dissertation defense, Spring 2019. Directors: Albert Valdman and Julie Auger)
- **Master's Degree in Languages and Linguistics**, Florida Atlantic University, Boca Raton, Florida, USA, (May 2009).
- **Bachelor of Arts in Languages and Linguistics**, Florida Atlantic University, Boca Raton, Florida, USA, (August 2007).
- **Associate of Arts**, Palm Beach Community College, West Palm Beach, Florida, USA (2005).
- **Baccalauréat, Terminal I and II,** *Ministère de L'Éducation Nationale d'Haïti*, (1996 - 1997) (Equivalent to U.S High School)

TEACHING EXPERIENCE & PROFESSIONAL APPOINTMENTS

Indiana University, Bloomington, Indiana (2009 – Present)

Haitian Creole Graduate Teaching Assistant

- Instructor of Haitian Creole (2010 - Present)
- Haitian Creole Instructor at Indiana University Summer Language Workshop (June – July 2017)
- Haitian Creole Distance Learning Instruction: Maine Migrant Health Program (2011 & 2016)
- Distance instruction of Haitian Creole, Virginia Tech and the Creole Institute at Indiana University (May 2014 - 2015)

Florida Atlantic University, Boca Raton, Florida (2007-2009)

French Graduate Teaching Assistance

- Graduate Teacher's Assistant (2007-2009)
- Instructor of French (2007 – 2009)

Palm Beach School District, West Palm Beach, Florida (2005- 2008)

Language Facilitator

- Translation and interpretation of English materials to Haitian Creole.
- Created a bridge between Haitian students, parents, and school administrations.
- Guided the Haitian community of South Florida to the resources available at the school wide level.
- Assisted ESL students and instructors in learning and English language instructions

HAITIAN CREOLE PROFICIENCY TESTS & EVALUATIONS

- 2019- Cora Reinhart (Undergraduate student at Indiana University, FLAS)
- 2017- Alexandria Pippen (Placement test, Nursing at Indiana University)
- 2017- Wesley Tanis (Proficiency test, student in Internal Affairs at Florida State University, IU Creole Institute)
- 2017- Marlisha Marcellin (Placement test, Masters in African Diaspora at Indiana University, IU Creole Institute)
- 2016- Anne Marie Decembrele (The Fletcher School Tufts University, Medford, MA, IU Creole Institute)
- 2015- Lilian Brown (Ph.D. student in Anthropology and Foods Studies at IU)
- 2014- Chanelle Wactor (FLAS, Indiana University)
- 2014- Megan Beddow (Grad student in Hispanic literature, FLAS, Indiana University)
- 2013- Sara-Claire Gaspard (Undergrad in Tourism, Hospitality and management at IU)
- 2012- Elizabeth Mazzocco, World Languages Program, Consortium of Amherst, Hampshire, Mount Holyoke, and Smith Colleges and the University of Massachusetts Amherst (Oral Evaluation administered by Tezil & Valdman, IU Creole Institute).
- 2011- Katherine Forgacs (Proficiency test, Indiana University)
- 2011- Alison Pitt (Indianan University, FLAS)
- 2011- Elizabeth Cooke (Indiana University, FLAS)

CONTRIBUTION TO PEDAGOGICAL RESOURCES

- Contributor to the proposal revision for the first year elementary Haitian Creole textbook *Ann Pale Kreyòl* (author: Albert Valdman)
- Contributor to the Haitian Creole- English Parallel Corpus Project (McNeil Technologies Language Research Center & Indiana University Creole Institute, 2010)
- Editorial Assistant for to the English- Haitian Creole Bilingual Dictionary, IU Creole Institute (Summer 2012)
- Haitian-Creole Standards Proficiency Assignment in Maryland with the American Council on the Teaching of Foreign Languages (ACTFL) and the Defense Language Institute (July 2015)

PUBLIC SERVICE & OUTREACH

- The CREDO Institute Inc. (Church Pension Group - the Episcopal Conference) (2010 – 2013)
- Language and Cultural facilitator for the Haiti Earthquake Relief
- Translation consultant for USAID/Haiti (Charcoals uses and environmental projects)

- Trinity Church Missions in Haiti (Bloomington, Indiana)
- Christ Fellowship Missions to Haiti (the Diocese of Indianapolis)

RESEARCH INTERESTS

Applied Linguistics
Contact Languages, French Bilingualism
Pidgins and Creoles
Sociolinguistics
Language Education

PEER REVIEWED PUBLICATIONS & WORKS IN PROGRESS

- 2019. TÉZIL, David. La nasalisation du déterminant en contexte non-nasal en créole haïtien : fait de langues résultant de l'analogie. In Rochambeau Lainy (ed.) *L'Analogie dans le processus de lexicalisation et de sémantisation en créoles guadeloupéen, guyanais, haïtien et martiniquais,* Les éditions Lambert-Lucas, Limoges : France.
- (In Progress) *A Variationist Study of the Haitian Post-posed Determiner LA in Non nasalized Contexts*. Doctoral Dissertation. Indiana University.

PROFESSIONAL PRESENTATIONS

- 2017 – *Humanitarian Assistance: Planning, Strategies, and Challenges*, Indiana University Summer Language Workshop.
- 2017 – Panel Moderation: 100 Years of Caribbean Migration Conference. CLACS.
- 2016 – Haitian Creole Language symposium, *Faculté de Linguistique Appliquée, Université D'Etat D'Haïti,* Port-au-Prince, Haiti.
- 2016 - Society for Caribbean Linguistic 21st Biennial Conference, Jamaica.

FELLOWSHIPS & GRANTS

- 2017 - Householder Research Fund, Department of Linguistics at Indiana University.

PROFESSIONAL AFFILIATIONS

- The Society for Caribbean Linguistics (SCL), Department of Modern Languages and Linguistics Faculty of Humanities and Education, The University of the West Indies St. Augustine, Trinidad & Tobago
- Indiana University Linguistic Club (IULC), Indiana University, Bloomington.