

# On the influence of *Kreyòl swa*

## Evidence from the nasalization of the Haitian Creole determiner /la/ in non-nasal environments

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The Haitian Creole (*Kreyòl*) spoken by bilingual speakers is a prestigious form of speech generally referred to as *Kreyòl swa* (KS), where Frenchified features (e.g. front rounded vowels) are often used. In contrast, monolingual speakers use *Kreyòl rèk* (KR), a variety in which Frenchified features do not generally occur (Fattier-Thomas 1984; Valdman 2015). In this article, I establish the nasalization of the definite determiner /la/ in non-nasal environments (*LĀ*), e.g. *chat lan* for *chat la* ‘the cat’, as a feature of KS. I show that while bilingual speakers do use both Frenchification and *LĀ*, monolingual speakers overuse nasalization as compared to bilingual speakers, but use Frenchification less than the bilingual group because it is harder to produce. Based in these findings, I suggest that the sociolinguistic situation of Haiti is more complex, i.e. it is extended beyond the relationship between French and *Kreyòl*.

**Keywords:** Haitian Creole, definite determiner, variationist sociolinguistics, Frenchified HC, *Kreyòl swa*, *Kreyòl rèk*, nasalization, *LĀ*

### 1. Introduction

Traditionally, the linguistic situation of Haiti has been characterized as a diglossia: all Haitians speak *Kreyòl*, and an elite minority speaks Haitian French. In fact, the linguistic situation is more complex. In addition to these two languages, members of the elite switch to a Frenchified variety of *Kreyòl* termed *Kreyòl swa* (‘silky Creole’, KS) (Fattier-Thomas 1984) characterized by the use of the front rounded vowels, /y/, /ø/, /œ/ and the phrase introduced *keu*, as exemplified by a segment of the former president Aristide: “*Eskeu m gen dè bagay keu m reugrèt? Eskeu m gen dè bagay keu m reugrèt? Wi! M reugrèt ... keu legliz la trayi ... legliz la jusqu’à*

*ce point là. M reugrèt ...* ‘Are there things that I regret? Yes, I regret ... that the Church betrayed ... the Church up to that point. I regret ...’

The speech of monolingual speakers is referred to as *Kreyòl rèk* (KR). Because of its prestigious status, speakers of KR often attempt to use KS but because of their lack of proficiency in it, they produce hypercorrected forms such as *son kalite* [blø] (a type of *blue* (bleu) for *s on kalite ble* ‘a type of wheat’ or *lelut* [lelyt] for *lelit* [lelit] ‘the elite’. Recently, a morphophonological feature has emerged a central feature of KS, the nasalization of the determiner /la/ in non-nasal environments (henceforth *LÃ*). In the postposed determiner /la/ of *Kreyòl*, there is an oral-nasal contrast where the form of the determiner is morphophonologically conditioned by the final segment of the preceding noun: *chat la* [ʃatla] ‘the cat’, *drapo a* [drapo<sup>w</sup>a] ‘the flag’, but *machin nan* [majinnan] ‘the vehicle’, and *chen an* [ʃẽã] ‘the dog’. As shown in sample (2) of the radio presentation below, the speaker, Liliane Pierre Paul, produces *polis lan* [polislã] ‘the police’ instead of *polis la* [polisla] but does produce the oral form after *leta a* [leta:] ‘the state/government’ and *fontyè a* [fõtjɛːa] ‘the border’. This linguistic change was first noted by Dejean (1980) who characterized it as free variation and then by Joseph (1984) who opted for stylistic variation. However, Valdman (1991a) conducted a study among middle-class bilingual Port-au-Prince speakers that showed that it was a sociolinguistic change initiated by middle-class younger bilingual speakers. His results indicated that the rate of *LÃ* among the younger speakers was significantly higher than that of the older speakers.

The purpose of this article is to: (1) establish that the use of the variant *LÃ* is a feature of KS, and (2) to show that this feature varies across speakers of various levels of bilingualism and schooling as well as across social situations. I also show that while Frenchification and *LÃ* are features of KS because they are both used by bilingual speakers (Valdman 1991a, 2015), monolingual and bilingual speakers use the two features at different rates. I suggest that monolingual speakers use *LÃ* more than bilingual speakers because this feature is easier to produce, while they use Frenchification less because it is harder to produce.

I adopt a variationist sociolinguistic approach, which includes a more diverse group of Haitians including speakers who are bilingual, monolingual, urban, rural less educated, men, and women. I use mixed-effects logistic regression models to separately analyze three sets of data including pair interviews, individual interviews, and a data elicitation task (henceforth PIE). In Section (2) I review the sociolinguistic situation of Haiti. In (2.1) I review the relationship of French and *Kreyòl* and how it influences speaker’s ideology and attitudes toward the two languages in (2.2). In Section (2.3) I review the different varieties of *Kreyòl* spoken in Haiti, including KS which has attained the highest level of prestige following French in Section (2.4). I also discuss how KS has influenced monolingual speech

because of the prestige associated to the use of Frenchified features when speaking this Kreyòl variety. In Section (3) I discuss the nasalization of *LA* in non-nasal contexts or *LÃ*, and how this feature has emerged as a central feature of KS in Section (3.1). In Section (3.2) I review this feature in light of previous studies, particularly Valdman's sociolinguistic study (1991a), using a variationist sociolinguistic approach to examine the feature more extensively. In Section (3.2) I describe the methodology for data gathering, followed by the description of the measures used for the dependent and independent variables in Section (3.3). In Section (3.4) I provide the analytical strategy, followed by the results and interpretation in Section (4). I discuss the results as well as their implications for the linguistic situation of Haiti in Section (5). The conclusion of the article is provided in Section (6).

## 2. Haiti's sociolinguistic situation

### 2.1 Kreyòl and French

Although all Haitians speak Kreyòl as their native language, it was not until 1987 that Kreyòl was recognized as the official language of the country along with French. While only a minority of Haitians speak French, the language has been highly regarded and attained a high level of prestige and dominance over Kreyòl as early as the postcolonial period (see Étienne 2006; Valdman 2015). Regarding the percentage of bilingual speakers of Kreyòl and French in Haiti, studies vary. While some (e.g. Valdman 1988; Doucet 2011) estimate the percentage of French speakers as low as 5–10% of the population, others (e.g. Zéphir 1997) argue that the proportion of bilingual speakers in Haiti may be higher among Haitians with higher levels of schooling through which they attained a certain level a proficiency in the language. Nevertheless, it is worth noting that in present-day Haiti, the bilingual speakers are socially different from those who have been traditionally described in the literature, according to which bilingualism was solely linked to the elite (Valdman 1988; Étienne 2006). If schooling provides access to French for many average Haitians, it is inconceivable for the elite to represent the only group of bilingual speakers in Haiti, considering that recent data published in a 2020 report by the Ministère de l'Éducation Nationale et de la Formation Professionnelle (MENFP) over 40% of the Haitian population attends formal schools between 2010 (the year following the earthquake) and 2015.

## 2.2 Attitudes and ideologies toward Kreyòl and French

There has been an extensive body of literature focusing on the issue of attitudes and ideologies toward Kreyòl and French in Haiti (e.g. Bentolila and Ganni 1981; Jean-Charles 1987; Jean-François 2006) and notably a survey conducted by Valdman in 1982 among parents of children enrolled in rural primary schools in Les Cayes, in southern Haiti (see Valdman 2015: 368–69). Overall, these studies emphasize negative attitudes held by many toward Kreyòl in favor of French, particularly when it comes to selecting the language of education. As Valdman noted (2015), French is not only more valorized by bilingual speakers but also by many monolingual parents who view the language as a linguistic capital (Bourdieu 1982) that ensures economic success and power in society. Other scholars (e.g. Schieffelin & Doucet 1994; DeGraff 2003; Hebblethwaite 2012) also view the negative attitudes expressed by many members of the French-speaking Haitian minority toward Kreyòl as socioeconomic divisions and class ideology. Nevertheless, more recently there has been growing acceptance of the place of Kreyòl in early education. 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.

## 2.3 Variation in Kreyòl and attitudes toward its particular varieties

As Valdman pointed out (2015: 370), it is reductionist to view the linguistic situation of Haiti only in terms of the dichotomy French and Kreyòl. There exist three regional varieties of Kreyòl: Southern Kreyòl, Northern Kreyòl, and Central Kreyòl, the variety spoken in the area surrounding the capital, Port-au-Prince. A major feature that differentiates these varieties is the form of the progressive marker: Central Kreyòl *ap*, Southern Kreyòl *pe*, and Northern Kreyòl *ape*. The Central Kreyòl is recognized as the standard variety. This variety is also more valorized than the Southern Kreyòl and the Northern Kreyòl. In addition to the regional varieties, there exists a sociolinguistic one commonly known as *Kreyòl swa* (KS), “silky Creole” (Fattier-Thomas 1984; Schieffelin & Doucet 1994; Valdman 2015), a variety of Kreyòl that has not been extensively studied.<sup>1</sup>

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1. Although Kreyòl is one of the most extensively studied creole languages, the field of variationist sociolinguistics remains relatively underexplored. There have been notable studies (e.g. Orjala 1970; Fattier 1998) focusing on regional variation in Kreyòl, but only a dearth of sociolinguistic ones, in particular Valdman 1991a; Valdman, Villeneuve, & Siegel 2015.

## 2.4 *Kreyòl swa*: KS

According to Fattier-Thomas (1984), the term KS refers to a *créole francisé* ‘Frenchified Kreyòl’ spoken by the bilingual Haitians, as opposed to *Kreyòl rèk* (KR), the varieties spoken by rural and lower-class monolingual Haitians. The most salient feature that characterizes KS is the presence of the front rounded vowels *èu* [œ], *eu* [ø], and *u* [y], as opposed to their unrounded counterparts *è* [ɛ], *e* [e], and *i* [i] found in KR. In addition, speakers of KS often produce a postvocalic *r*, which alternates with zero (Ø) in monolingual Kreyòl. Finally, the complementizer equivalent to *that* may be realized as *ke and keu* in KS, whereas in the Kreyòl variety spoken by monolingual Haitians it is absent. In a transcription of a recorded radio interview from 1989 between a journalist and the former president of Haiti, Jean-Bertrand Aristide, Valdman (2015) identifies several features of KS, such as the French rounded vowels [ø] transcribed *eu* as in *reugrèt* for *regrèt* ‘regret’, the complementizer *keu*, and the postvocalic *-r* as in *personalite vertical* for *pèsonalite vètikal* ‘straight-up (heroes)’.

- (1) The use of Frenchified features in Kreyòl by the former President Jean-Bertrand Aristide (Valdman 2015: 353)

*Eskeu m gen dè bagay keu m reugrèt? Wi! M reugrèt... keu legliz la trayi... legliz la jusqu'à ce point là. M reugrèt... keu tèt legliz la pa bay temwanyaj deu kretyen vanyan menm jan anpil evèk dans le temps te konn bay. M reugrèt keu nons apostolik la rive redui monsenyè nou yo tankou timoun nan men l, nou menm, yon pèup ki gen ero, ero ki genyen... deu pèsonalite vèrtikal dwat.*

‘Are there things that I regret? Yes, I regret... that the Church betrayed... the Church up to that point. I regret... that the heads of the Church didn’t give an example of brave Christians like many bishops used to give formerly. I regret that the apostolic nuncio was able to reduce our monsignors to the role of children he controlled, we, a people that has heroes, heroes who were upstanding.’

Scholars who have observed the use of KS in Haiti (Dejean 1980; Schieffelin & Doucet 1994; Valdman 2015) note that this speech has gained a relatively higher level of prestige compared to the other Kreyòl varieties because not only are they used more frequently by bilingual speakers but also because they may reflect competence in French. For example, Valdman (2015: 75) indicates that even monolingual speakers might strive to produce them in situations that demand the most Frenchified form of Kreyòl they can muster. Dejean (1980:124) also reported observing cases of hypercorrection among some monolingual speakers who, during a reading task, extended these features to contexts where the production of the front unrounded vowel [i] is obligatory. That is, a hypercorrection in which the word *liv* ‘book’ is pronounced with a lip rounding \**luv* [lyv]. For Dejean

(1980:124–6), these cases are a result of rudimentary schooling. Therefore, it is logical for KS to be ranked higher (following French) than the other Kreyòl varieties, in terms of level of prestige. However, in the next section I show that in addition to the Frenchified features listed above, the nasalization of the definite determiner /la/ in non-nasal environments (i.e. after oral segments) or *LÃ*, has emerged as a central feature of KS.

### 3. The nasalization of /la/ in non-nasal environments, or *LÃ*

#### 3.1 The distribution of the Kreyòl determiner /la/

In Kreyòl, the definite postposed determiner /la/ is realized in five variants: [la], [a], [ã], [nã], [lã] (Sylvain 1936:27; Cadely 1994:195; Nikiema 1999:70; DeGraff 2007:117). The determiner occurs as [la] when the final segment of the noun preceding the determiner is an oral consonant: *tab la* [tabla] ‘the table’, or a glide: *revèy la* [revɛjla] ‘the clock’. It is realized as [a] after an oral vowel: *papa a* [papaa] ‘the father’. In words ending in a nasal consonant, it appears as [nã]: *machin nan* [majinnã] ‘the car’, and as [ã] after a nasal vowel: *chen an* [ʃɛã] ‘the dog’. The fifth variant is a case involving free variation where [lã] may alternate with [la] after words ending in a nasal vowel followed by an oral consonant: *bank lan/la* [bãklã/la]. This suggests that in addition to the vocalic-consonantal contrast of the final segment, the forms of the determiner are also conditioned by the oral-nasal contrast: *chat la* [ʃatla] ‘the cat’, but *zam nan* [zamnan] ‘the firearm’. Recently, the generalization of the variant *LÃ* has emerged as a central feature of KS, where many speakers (particularly educated bilingual ones) often produce the nasal forms of the determiner in environments where nasalization is not expected to occur: *lekòl lan* [lekollã] for *lekòl la* [lekolla] ‘the school’, or *peyi an* [pejiã] for *peyi a* [pejiã] ‘the country’. As shown in sample (2) of a radio presentation below, in addition to the use of front rounded vowels, the speaker, Liliane Pierre Paul, produces *polis lan* [polislã] ‘the police’ instead of *polis la* [polisla] and *ankèt lan* [ãketlã] ‘the investigation’ for *ankèt la* [ãketla] but does not nasalize the determiner after *leta a* [leta:] ‘the state/government’ and *fontyè a* [fɔ̃tjɛã] ‘the border’.

- (2) The production of Frenchified features and *LÃ* by Journalist, Liliane Pierre Paul (Tezil 2019:152–153)

*N ap vini ak lòt gwo pwen... nan pwen nan **aktualite a**...antèman krèv **kèu**...jodi a, kat ajan ladwann ki mouri kankannen nan Malpas malgre yo te pase setèdan ap mande èd. Pa gan kenn èd ki te vin sove yo anba flanm **dufeu** nan komisarya **polis lan** sou Malpas..e kote **keu** yo konnen te genyen yon ensi-*

*dan ant ajan sa yo ki spesyalize nan batay kont kontreubann ak moun ki t ap antre ak machandiz yo... e sou fontyè a. Bilan gen sis moun ki pèdu 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 responsable leta e seulon reponsab... li te di se fayit leta a youn nan reponsab ladwann nan yè... juridik ki te di se fayit leta a ki lakòz kat jèun sa yo pèdu lavi yo.*

‘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.’

Empirical evidence from samples such as text (2) provides substantial support for the argument suggesting that the speech of bilingual Haitians (or KS) is not exclusively limited to Frenchified features. Additionally, *LÃ* has become a feature of KS, as Joseph (1984: 87) put it: « *Remarquons qu’il existe actuellement une forte tendance à généraliser la nasalisation des déterminants au niveau d’un langage plus ou moins recherché observé chez les locuteurs bilingues.* » ‘Note that there is a strong tendency to generalize the nasalization of determiners in a variety of the language more or less stilted observed among bilingual speakers. Yet, *LÃ* has not been extensively analyzed in the previous literature.

### 3.2 Previous studies on *LÃ* in *Kreyòl*

Going back to Sylvain (1936), linguists (e.g. Faine 1937; Hall 1953; Dejean 1980; Joseph 1984; Valdman 1991a, 2015; Jean-Baptiste 1992; Cadely 1996, 2003) have mentioned the use of *LÃ* in *Kreyòl*. 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’. However, Valdman (1991a) conducted a study among middle-class bilingual Port-au-Prince speakers that showed that it

was a sociolinguistic change initiated by middle class younger bilingual speakers. His results indicated that the rate of  $L\tilde{A}$  among the younger speakers was significantly higher than that of the older speakers. He found that younger speakers were extending the domain of nasalization to non-nasal environments more frequently than their older peers. For example, the rate of  $L\tilde{A}$  among the younger speakers was significantly higher (42.9%) than that of the older speakers (3.6%). For words ending in an oral consonant, the frequency of  $L\tilde{A}$  was about 55.5% among the younger participants versus 4.5% among the older participants. As for the occurrences of  $L\tilde{A}$  with oral vowels, the frequency rate was 28.3% for the younger speakers and 2.5% for the older speakers. Given that the younger speakers nasalized more than their older peers, Valdman (1991a: 82) concluded that there was a change in progress being led by younger middle-class Haitians.

I extended research on the nasalization of the determiner /la/ to investigate the spread of this feature beyond middle class, Port-au-Prince, bilingual speakers. I collected a larger data set extracted from speakers of different social profiles (e.g. monolingual, rural, and less-educated speakers). The interview data was statistically analyzed using variationist sociolinguistic approaches and mixed-effect models. It is worth mentioning that although Frenchification is also discussed and examined, the main focus of this paper is on the use of  $L\tilde{A}$  in Kreyòl.

### 3.3 Variationist sociolinguistic account of $L\tilde{A}$

#### 3.3.1 Methodology

Forty-five hours of interview data were collected from 32 native speakers of HC. These speakers were equally selected from two geographical locations of Haiti: Carrefour (southern outskirts of Port-au-Prince, urban) and Béraud (Southern department, rural region of Les Cayes).

At both research sites, participants were recruited through publicly posted flyers and phone calls. In order to observe stylistic variation, each speaker participated in three different tasks including pair interviews (P), individual interviews (I), and data elicitation (E) (henceforth PIE).





Figure 1. Map of Haiti (Source: The United Nations, January 2019)

### 3.3.2 Data gathering using PIE

Besides the opportunity to observe stylistic variation, the pair interview reduces speaker's self-monitoring behaviors due to unfamiliarity with the investigator and to enhance informal and casual interaction using another peer. This session was short and lasted 10 to 15 minutes. The pairing strategy was flexible and mostly based on the availability of the two speakers, who were randomly paired.

After the pair interviews, I interviewed each speaker individually over a period of 60 to 70 minutes. The individual interview allows individual speakers to engage in a more guided conversation with the investigator. While the pair interview reduces attention from the investigator, there is the possibility for some speakers to become shy or intimidated by someone outside of their community during the individual interview. The questions were divided into thematic modules (Labov 1984, 2001). These modules contain both general questions and those that were specific to the speaker's personal experiences.

At the end of the interviews, each speaker was asked to undergo a data elicitation task (see appendix Table 4) which had had two main purposes: (1) to collect data in a controlled manner for the linguistic contexts that might not have been elicited in the individual and in-pair interviews; (2) to observe whether or

not speakers would nasalize the determiner as they become somewhat more conscious of their language selection. The data elicitation list contains 60 words ending in the following syllable structures: an oral consonant followed by a vowel CV (e.g. *diri* ‘rice’), a nasal consonant followed by a vowel NV (e.g. *pitimi* ‘millet’), an oral consonant and an oral vowel followed by an oral consonant CVC (e.g. *makak* ‘monkey’), and a nasal consonant and an oral vowel followed by an oral consonant NVC (e.g. *klinik* ‘clinic’). The task involves giving the speakers these target words incorporated in sentences with the plural form of the determiner (e.g. *Mwen achte liv DET (plur.)* ‘I bought the books.’), and requires them to change the entire sentence using the singular forms (e.g. *Mwen achte liv DET (sing.)* ‘I bought the book’). In Standard Haitian Creole, plurality is formed with the post-posed invariable plural marker *yo*, e.g. *Chèz la bèl* ‘the chair is nice’ becomes *Chèz yo bèl* ‘The chairs are nice’. Considering that the allomorphic variation can only occur in the singular form of the determiner, the stimuli were all followed by the form *yo* (see appendix Table 4). Furthermore, I randomly introduced 30 fillers containing nasal contexts into the task in order to distract the speakers from guessing the objectives of the data elicitation. After the data elicitation task was completed, all 30 variants occurring with words ending in CV and CVC syllables were extracted and analyzed.

### 3.4 Measures

#### 3.4.1 Dependent variables: Frenchification and nasalization

The two dependent variables are Frenchification and nasalization of the determiner /la/ after words ending in CV and CVC syllables, which constitute the non-nasal environments. They are both binary variables where “o” indicates that the speaker did not use Frenchified features and “i” indicates that the speaker did use Frenchified features. For the variable nasalization, “o” indicates that the speaker did not nasalize the determiner in non-nasal environments and “i” indicates that the speaker did nasalize the determiner in non-nasal environments. Although Frenchification can occur in nasal as well as in oral environments (i.e. non-nasal), in this study this feature is constrained only to non-nasal environments to ensure its comparability with the nasalization of the determiner since the two are features of KS.

#### 3.4.2 Independent variables

##### 3.4.2.1 Key independent variables

The analyses contain two key independent variables of interest. The first one is the intersection of education and bilingualism. To create this variable, I combined

(1) a binary indicator of speakers' years of schooling (below average and average or higher) and (2) a binary indicator of bilingualism based on speakers' scores on a French proficiency test. Since Haitians complete 5.6 years of school, on the average (United Nations Human Report 1990–2020), I categorized speakers as having below average levels of education if they completed less than 6 years of school and as having average or higher levels of education if they completed 6 or more years of schooling. To distinguish the bilingual speakers from the monolingual ones I administered a proficiency test to evaluate speaker's ability to effectively communicate in French. To be categorized as bilingual, all 32 speakers had to score a 7 or higher on the proficiency test. Those who scored lower than 7 were coded as monolingual speakers (see appendix Tables 5–6).<sup>2</sup>

Speakers were categorized into three groups: (1) bilingual speakers with average or higher years of schooling ( $\geq 6$ ) (henceforth BilingE+), (2) monolingual speakers with average or higher years of schooling ( $\geq 6$ ) (or MonoE+), and (3) monolingual speakers with lower-than-average years of schooling ( $< 6$ ) (or MonoE). None of the 32 speakers fell into the category of bilingual speakers with lower-than-average years of schooling ( $< 6$ ). This variable is the equivalent of an interaction between bilingualism and education. The other key independent variable is Task, i.e. where variation across tasks is examined within individual speaker groups.

#### 3.4.2.2 *Speaker's social factors*

I also included speaker's social factors, such as gender, age, and geographic location in my models. Gender is a binary measure (men and women). With regard to age, I divided my participants into two generations of speakers labeled juniors and seniors, similar to the categories used by Valdman (1991a). I included 16 speakers between the ages of 18 to 25 (juniors) and 16 speakers between the ages of 40 to 60 (seniors). Finally, I included a binary measure of geographic location. This variable indicates whether respondents live in urban (Carrefour) or rural (Béraud) areas. 16 speakers lived in rural areas and 16 lived in urban areas.

#### 3.4.2.3 *Linguistic factors*

Since *LA* is morphophonologically conditioned by the final segments of the immediate word, I propose to account for the entire word-final syllable (e.g. *patat*

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2. Table A6 in the appendix is a rubric containing a set of guidelines that help distinguish bilingual speakers from monolingual speakers. These guidelines contain specific skills that assess what speakers can do in French as well as features that help set apart French from Kreyòl, particularly features that are absent in Kreyòl (e.g., morphological agreement, inflectional morphemes, conjugation, etc.).

*la* [patatla] ‘the sweet potatoes.’ In other words, I coded for two linguistic variables: the structure of the syllable (CV, CVC), and vowel height (high, mid, low).

### 3.5 Analytical strategy

Because the focus of this study is the occurrence of Frenchification and nasalization in non-nasal environments, I restrict my sample to tokens occurring in non-nasal environments, that is, after words ending in oral segments. I begin my analysis with descriptive statistics. In Table 1, I provide the overall rates of Frenchification and nasalization. Next, I present results from inferential statistics using mixed effects logistic regression models predicting nasalization and Frenchification in non-nasal environments.<sup>3</sup> Mixed effects models are increasingly used in corpus sociolinguistic studies such as this one because they appropriately model nested data where multiple tokens/observations come from the same speaker and/or where each speaker contributes a different number of tokens (see Tagliamonte 2006; Gries 2015). These models allow me to correctly account for variation in Frenchification and nasalization that occur between different speakers and the variation that occurs within the speech of a particular speaker. The fixed effects in these models are the social and linguistic factors. Speakers are included as a random effect in the models, which allows the fixed effect predictors to vary from one speaker to another. By inserting speaker as a random effect, the significance of the social and linguistic factors can be assessed while accounting for variation within individual speakers, thus reducing the risk Type I error (false positives).

I present two main sets of analyses. In the first set, I estimate two different models, one predicting Frenchification and the other predicting nasalization. Both of these models use only data from the pair and individual interviews since there is no Frenchification in the elicitation task. Although nasalization does occur in the elicitation task, I chose not to include this data in my first set of analyses in order to keep the sample the same in this set of models comparing Frenchification and nasalization. My second set of analyses also predicts nasalization but uses data from all three tasks (pair, individual, and elicitation). In these analyses I include an interaction between speakers’ levels of bilingualism and schooling, and task to better understand how nasalization varies across tasks.

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3. Mixed effects regression models are also commonly referred to as multi-level models. Mixed effects logistic regression models, which are appropriate for binary outcome variables, are also commonly referred to as generalized linear mixed-effects models.

## 4. Results and interpretation

### 4.1 Descriptive statistics

As seen in Table 1, the overall rate of  $L\tilde{A}$  (i.e. nasalization of the determiner) is 12%, while the rate of Frenchified features is 6%. The number of total tokens for the two features are different because the analysis for Frenchification only includes data from the pair and individual interviews, whereas the analysis for nasalization includes the two interviews and the data elicitation task. Therefore, the results is presented in two parts.

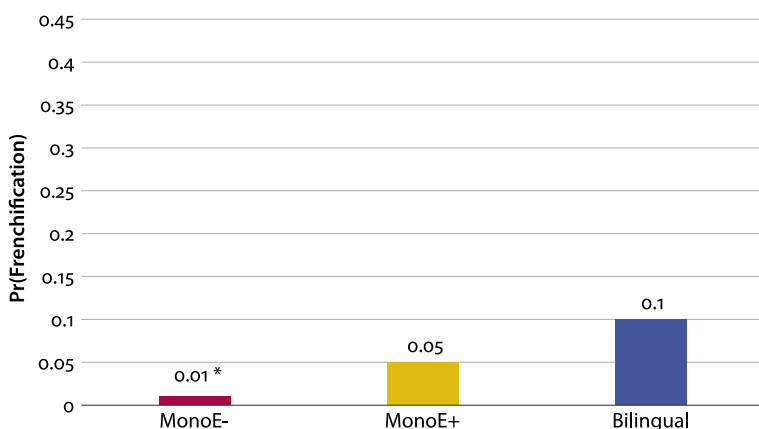
**Table 1.** Rate of nasalization and Frenchification in non-nasal environments

	Outcomes
Rate of nasalization	12% (488/4,132)
Rate of Frenchification (excluding elicitation)	6% (195/3,172)

#### 4.1.1 Part I: Frenchification and nasalization of LA in non-nasal environments

In this section, I provide example interpretation for predicted probabilities which are derived from results of two mixed effects logistic regression models predicting Frenchification and nasalization, separately. I provide the results from these models in odds ratio form in appendix Table 1 (Frenchification) and 2 (nasalization). As indicated in Figure 2, The probability of Frenchification among BilingE+ is 10%, among MonoE+ about 5%, and about 1% among MonoE-. I then conducted chi-squared tests to assess whether these are significant differences between speaker groups. I found that the only significant difference is between BilingE+ and MonlingE- speaker, such that BilingE+ are significantly more likely to use Frenchified features than MonoE-. There are no significant differences either between MonoE+ and MonoE- or MonoE+ and BilingE+. This suggests that bilingual speakers still use Frenchified features- such as front rounded vowels and postvocalic *r* in HC- at a higher rate than monolingual speakers. However, the difference is only significant to those with little to no levels of schooling.

In Figure 3, I use the same mixed effects logistic regression model to derive predicted probabilities for the use of the nasal variant  $L\tilde{A}$  (see Table 2 in appendix to see results from the mixed effects model). Results indicate that the probability that MonoE- speakers will nasalize in non-nasal environments is about 7%, the probability for MonoE+ is 22%, and about 11% among the BilingE+ speakers. Chi-squared tests were again run to determine whether there are statistically significant differences in the occurrence of nasalization among the three speaker



**Figure 2.** Predicted probabilities for Frenchification by bilingualism and schooling for pair and interview tasks ( $N=3, 172$ )

#  $p < 0.05$  significantly different from Mono E+

\*  $p < 0.05$  significantly different from bilingual

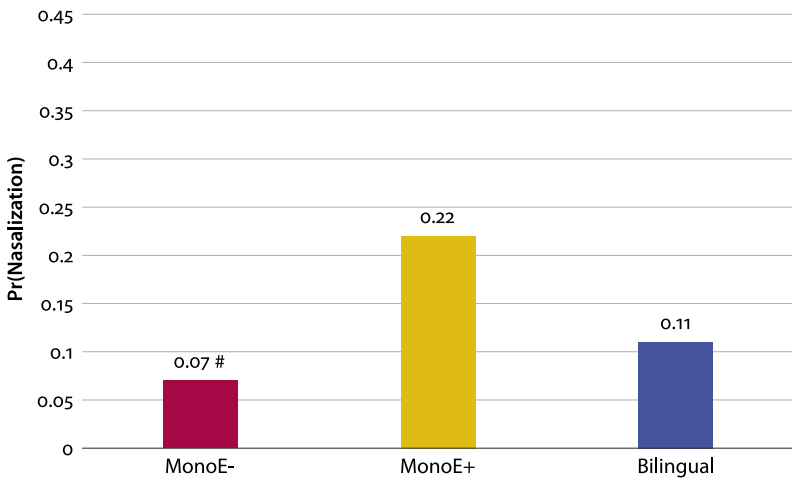
This figure derived from appendix Table 1

groups. The results of the test showed that the only difference in nasalization is between MonoE- and Mono E+, such that MonoE+ nasalizes significantly more than MonoE-. There were no significant differences between bilingual speakers and the other two speaker groups.

In all, results from Figures 2 and 3 indicate that the monolingual speakers with average and higher levels of schooling (or MonoE+) use Frenchified features and  $L\tilde{A}$  (i.e. nasalization) at a rate that is not significantly different from that of the bilingual speakers (BilingE+). However, the monolingual speakers with lower-than-average schooling (MonoE-) do Frenchify significantly less than bilingual speakers and they nasalize significantly less than MonoE+ speakers. This points to the need to categorize speakers not just by proficiency in French, but also by levels of education.

#### 4.1.2 Part 2: *The nasalization of /la/ or $L\tilde{A}$ in PIE*

In Part 1, I established that both Frenchification and nasalization are occurring in KS. In part 2 of my analyses, I combine all of the data sets (PIE) in order to analyze the nasalization of the definite determiner /la/ in non-nasal environments (i.e.  $L\tilde{A}$ ). Specifically, I examine whether task type impacts this variant and speaker's style shifts in response to diverse situations by education and bilingualism group. After estimating the mixed effects logistic regression model predicting nasalization, a Wald test was administered showing that the interaction between



**Figure 3.** Predicted probabilities for nasalization by bilingualism and schooling for pair and individual interviews ( $N=3, 172$ )

#  $p < 0.05$  significantly different from Mono E+

\*  $p < 0.05$  significantly different from bilingual

This figure derived from appendix Table 2

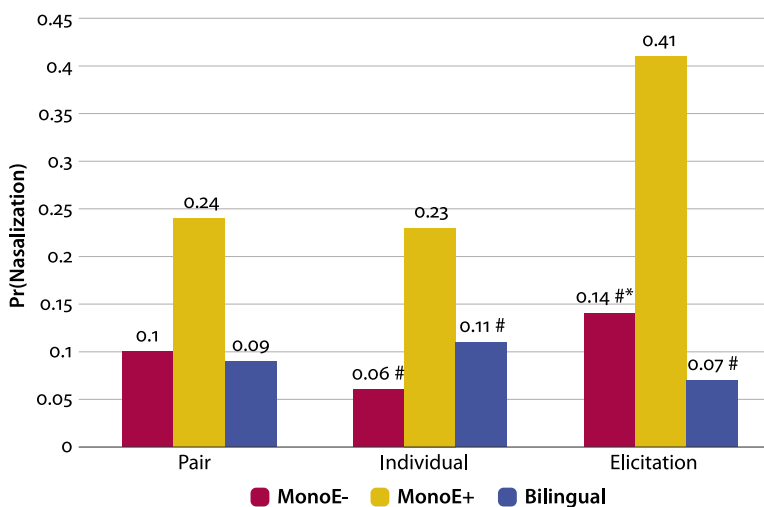
the schooling & bilingualism measure and task (PIE) is statistically significant and should be included in the model.<sup>4</sup> The results from the mixed effects logistic regression model (see appendix Table 3) was used to derive predicted probabilities which are much easier to interpret.

In Figure 4, I present predicted probabilities for nasalization across all tasks and speaker's level of schooling & bilingualism. Results indicate that overall, the probability of nasalization among MonoE- is about 8%, for MonoE+ 27%, and for bilinguals the probability is about 10%. However, when these rates are broken down by individual task, the results indicate fluctuations among these three speaker groups. During the pair interviews, the probability of nasalization was about 10% among MonoE-, about 6% for individual interviews, and about 14% for the elicitation. For MonoE+ speakers, the probability of nasalization was about 24% during the pair interviews, 23% during individual interviews and the probability of nasalizing during the elicitation was about 41%. As for the bilingual speakers, they have about a 9% probability of nasalizing during the pair inter-

4. Wald  $\chi^2(10) = 143.84$  Prob >  $\chi^2 = *0.0000$

The AIC and BIC statistics are also lower for the model with the interaction, indicating that it is a better fit to the data than the model without an interaction between schooling&bilingualism and task (PIE).

views, about 11% for the individual interviews, and a 7% probability of nasalizing during the elicitation. Below, I discuss statistically significant differences among speakers by task and among task by speakers.



**Figure 4.** Predicted probabilities for nasalization by task and bilingualism and schooling ( $N=4,132$ )

#  $p < 0.05$  significantly different from Mono E+

\*  $p < 0.05$  significantly different from bilingual

This figure derived from appendix Table 3

#### 4.1.3 Significant differences (Chi2 test) among speakers by task and among task by speakers

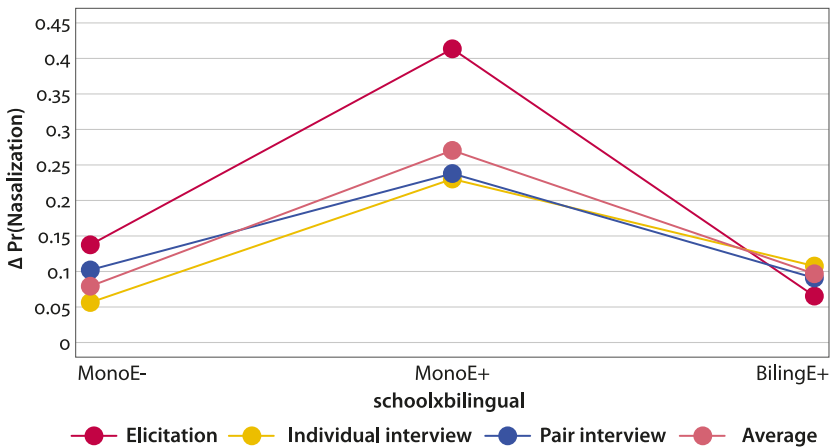
Within Schooling & Bilingualism by Task, MonoE- speakers nasalized significantly more during the elicitation (probability of 14%) and the pair interviews (10%) than they did during the individual interviews (6%). MonoE+ speakers nasalized significantly more during the elicitation (41%) task than they did in either the individual (23%) or pair interviews (24%). Finally, BilingE+ speakers nasalized significantly more during the individual interviews (11%) than they did during the elicitation (7%).

Within Task by Schooling & Bilingualism, there were no significant differences in nasalization between MonoE- (probability of 10%), MonoE+ (24%) during the pair interview. However, during the individual interview, MonoE+ (23%) and BilingE+ (11%) speakers nasalized significantly more than MonoE- speakers (6%). There was no significant difference between MonoE+ and BilingE+ speakers during the individual interview. During the elicitation task, MonoE+ (41%) speak-



ers nasalized significantly more than MonoE- (14%) and BilingE+ (7%) speakers. MonoE- nasalized significantly more than BilingE+ speakers during the data elicitation task. Despite these differences, overall, it is safe to say that the MonoE+ group is outdoing everyone else, although in the pair interview there is a possibility that the speakers were trying to adjust to each other's speech.

Figure 5 is another visual representation of the predicted probability between speakers' level of bilingualism & schooling across task. The elicitation task is the highest predictor of nasalization among the monolingual speakers and the lowest for the bilingual speakers. The individual interview constitutes the highest predictor of nasalization for bilingual speakers.



**Figure 5.** Predictors of nasalization in PIE

Note: The yellow line is the average

This figure derived from appendix Table 3

The fluctuation in nasalization across PIE demonstrates that not only is the use of the nasal variant  $L\tilde{A}$  conditioned by social characteristics but also by tasks. Because speakers are more conscious of their speech during the data elicitation task, there is a possibility that speakers might have used a more guarded and careful speech, whereas as during the interviews, less attention might have been paid to their speech (Labov 1972).

Results from the mixed effects logistic regression model (from which the predicted probabilities above were derived) reveals variation in nasalization by other social and linguistic factors (see Tables 2 & 3 in the Appendix). Women nasalize significantly more than men, net of other factors. Urban speakers nasalize significantly less than rural speakers, and there is no significant difference by age. In addition to social factors, the feature has been suggested to be influenced by lin-

guistic factors, particularly after a high vowel, while low and mid vowels favor nasalization significantly less than high vowels. CVC syllables favor nasalization significantly more than CV syllables. The favorability of high vowels and CVC syllables is discussed more extensively in Section (5).

## 5. Discussion

As it is often the case, the prestige that characterizes linguistic forms often begin by its association with those who use them. Jean-Bertrand Aristide and Liliane Pierre Paul's uses of Frenchified features and *LÃ* in non-nasalized environments may be understood to be a deliberate effort on their part to use the language of the monolingual, less educated masses who have very little contact with French. Yet, as bilingual speakers, their speech in HC often resembles that of the monolingual speakers with average and higher level of schooling (MonoE+). For instance, although the rate of Frenchified features was higher among the BilingE+, there was no significant difference between MonoE+ and BilingE+ in terms of Frenchification, but significantly different to the MonoE-. Since the MonoE+ and BilingE+ groups have at least average schooling, it is plausible to say that formal schooling plays an important role in reinforcing the use of KS, which is often initiated by Haitian educators who express overt preferences for the features of KS when communicating in Kreyòl, particularly on the school campuses, as some of them expressed in these terms during the interviews: "*Menm lè y ap pale kreyòl la, timoun yo pa gen bon diksyon menm menm. Se bouch gaye ase yo pale*". 'Even when speaking Kreyòl, the children do not articulate well at all. They speak with their mouth wide open'. Although the term "gaye" literally refers to a speech that is unorganized and unstructured, the examples that the teachers then used later made it clear that they were referring to the use of front unrounded vowels, such as those in *diri* 'rice' and *bè* 'butter' as opposed to their front rounded counterparts in *duri* and *bèu*.<sup>5</sup>

Regarding the extension of nasalization to non-nasal environments in the determiner of Kreyòl (*LÃ*), there seems to be a shift among monolingual speakers and bilingual speakers, as the former group nasalize more than the later. It is also

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5. While the monolingual form may be attributed to less prestige in certain situations, the use of hypercorrection often provokes mockery, which explains why hypercorrected speech is often adopted in Haitian comedy to portray uneducated Haitians, crude people, and even the peasantry. This may explain why Haitian parents and educators who are aware of the stereotype often emphasize the importance of correcting children for either not using the front rounded vowels or for misusing them.

worth noting that the MonoE+ and MonoE– nasalized both significantly more than BilingE+ during the task, which constitutes a context in which suggests that speakers are more conscious of their use of the determiner. The increase in nasalization might be a strategy for the monolingual groups to compensate for the lack of Frenchified features, particularly during formal situations, as simulated during the data elicitation task.

The sociolinguistic landscape is much more complex than is traditionally assumed. The linguistic situation of Haiti is not simply about the relationship between French and HC. For many bilingual Haitians, speaking KS with front rounded vowels may not carry as much prestige as French, but it is still valued in situations in which the use of French is deemed less appropriate. This explains why Valdman suggests that KS (or the mesolectal) is the “L” language for bilingual Haitians (1991b:124) and French their “H” language. However, even if KS has lower status than French in the linguistic market (Bourdieu 1971), it serves both monolingual and bilingual speakers well. Therefore, bilingual speakers, such as journalists, religious leaders, politicians, businesspersons, and educators may be forced to use more Kreyòl in public spheres, but they do so by using a Kreyòl variety that does not compromise their social status (e.g. being educated). In doing so, bilingual speakers can avoid being portrayed as “elitists” and “out of touch” with the rest of the Haitian population. Those with lower levels of proficiency in French (e.g. MonoE+, MonoE), can also make use of the prestigious features of KS (e.g. either Frenchification or *LĀ*) as a form of linguistic capital (Bourdieu 1982) that could be used at time as concrete phenomenon to perform sociolinguistic identity (Eckert and Labov 2017). These “small” phonetic features of KS can make them sound like bilingual speakers, particularly in formal situations, as their style shifts (e.g. data elicitation, job interviews, media interviews, church interaction, etc.). In that sense, monolingual speakers may try to display the linguistic capital of KS to acquire power, status, and prestige. I provide a model in Figure 6 which constitutes a new approach to examine KS and KR in Haiti.

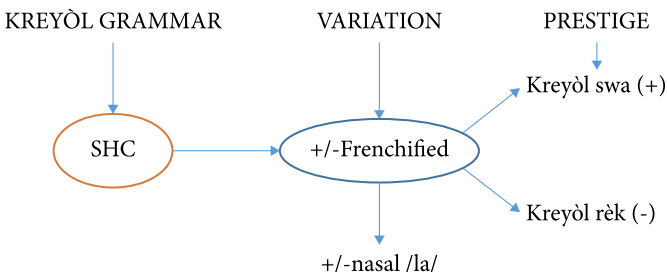


Figure 6. Representation of KR and KS

Speakers who speak KS and KR share similar grammar, i.e. the standard Kreyòl variety (SHC). The most salient difference between KS and KR is the frequency in which the features of these two varieties alternate. For example, bilingual speakers are more likely to apply [+Frenchified] to front vowels when speaking Kreyòl, while monolingual speakers are more likely to use [-Frenchified] features. The nasalization of the determiner /la/ in non-nasal environments has also been examined as a feature of KS. This non-Frenchified feature has spread very rapidly among monolingual speakers because (1) it has attained a certain level of prestige from its association with bilingual speech, and (2) it is easier to produce than [+Frenchified].

## 6. Conclusion

Haiti's sociolinguistic situation is traditionally defined as diglossic, where French is used in formal and public domains, and Kreyòl is used in private and informal domains (Ferguson's 1959; Fishman 1979). However, the linguistic situation of Haiti is much more complex. In addition to French, bilingual Haitians speak a Kreyòl variety that contains Frenchified features, such as front rounded vowels. For example, bilingual speakers tend to produce a word such as 'butter' with the French front rounded vowel [œ]: *bèu* [bœ], while monolingual speakers pronounce the same word with a front unrounded vowel [ɛ]: *bè* [bɛ]. This study had two main objectives. First, to establish the nasalization of the Kreyòl definite determiner /la/ (*LÃ*) as a feature of KS, and (2) to show that this feature varies across speakers of various levels of bilingualism and schooling, as well as across social situations. To meet these objectives, I used a variationist sociolinguistic approach based on statistically analyzed data to examine the relationship between Frenchification and nasalization, and speakers' level of bilingualism and schooling across tasks. The results indicated that BilingE+ used Frenchified features at a higher rate than the monolingual speakers. Yet, while BilingE+ Frenchified significantly more than the MonoE-, they showed no significant difference with MonoE+. The fact that the BilingE+ group used Frenchified features significantly less than MonoE-, but not to MonoE+ indicates that schooling constitutes an important social factor among those who do not have communicative proficiency in French.

While it is clear that Frenchified features are perfectly comprehensible to monolingual Haitians, their production is less natural, hence more challenging, as opposed to the nasalization of the determiner /la/, a non-Frenchified feature that is much easier to produce because it is part of the internal structure of the HC grammar – which explains why the rate of *LÃ* is higher among the monolin-

gual speakers. Bilingual speakers, on the contrary, have more experience producing Frenchified features not only because they are more proficient in French but also because they use Frenchified features more often when interacting with their bilingual and educated peers in Kreyòl.<sup>6</sup>

As for the effect of the linguistic factors, the results showed that high vowels constitute the most favorable context to the nasalization of the determiner, while the low vowel [a] is the most unfavorable context. 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’ [papa:] and not as [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 *LĀ* appears in a CVC syllable regardless of the vowel height, this makes this syllable structure a more favorable context for nasalization than CV.

It remains unknown whether the nasalization of the determiner /la/ in non-nasal environments is a change that is reducing the number of allomorphs of the determiner in Kreyòl (Valdman 2015: 90), or whether this non-Frenchified feature that has been integrated into KS simply constitutes a sociolinguistic variant (Labov 1972, 2001). Nevertheless, at a time in which Haitians’ positive attitude toward Kreyòl continues to rise, the recognition of KS as a prestigious variety may contribute to promoting the ongoing effort by linguists, educators, government officials, and advocates to effectively use the Kreyòl as an integral part of Haitian life, particularly as the language of education.

## Acknowledgements

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6. No studies have yet established a direct link between the use of Frenchified features and the knowledge of French. While those who speak French tend to use Frenchified features more often than those who do not speak French, evidence suggests that many monolingual speakers produce these features even if they do not speak French, particularly if they are in contact with bilingual speakers who speak KS (see Valdman 2015; Tezil 2019). Therefore, the real difference between these speaker groups is based on difference in frequency rates.

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## Appendix

**Table A1.** Mixed-effects logistic regression odds ratios predicting Frenchification in the pair and individual interviews ( $N=3,172$ )

Fixed effects	Empty model	Full model
	Coefficient	Coefficient
<b>Social factors</b>		
<i>Gender (referent is Men)</i>		
Women		2.37 <sup>#</sup> (0.92)
<i>Age (referent is Senior)</i>		
Junior		0.96 (0.40)
<i>Location (referent is Rural)</i>		
Urban		0.68 (0.28)
<i>Bilingualism+schooling (referent is MonoE+)</i>		
MonoE–		0.11 <sup>###</sup> (0.05)
MonoE+		0.44 (0.30)
<b>Linguistic factors</b>		
<i>Syllable structure (referent is CV)</i>		
CVC		1.08 (0.17)
<i>Vowel height (referent is High)</i>		
Low		0.35 <sup>##</sup> (0.12)
Mid		1.25 (0.22)
Tasks		2.39 <sup>###</sup> (0.45)
<b>Intercept</b>	0.03 <sup>###</sup> (0.01)	0.05 <sup>###</sup> (0.02)
<b>Random effect</b>	<b>Variance component</b>	<b>Variance component</b>
Speaker	1.74 (0.67)	0.71 (0.31)
<b>ICC</b>	<b>Coefficient</b>	<b>Coefficient</b>
	0.35 (0.09)	0.18 (0.06)
<b>Model fit statistics</b>		
AIC	1333.6	1290.6
BIC	1345.7	1357.3
LRT $\chi^2$	136.0 <sup>###</sup>	57.5 <sup>###</sup>

###  $p < 0.001$  ##  $p < 0.01$  #  $p < 0.05$

Standard errors in parentheses



**Table A2.** Mixed-effects logistic regression odds ratios predicting nasalization in non-nasal contexts during pair and individual interviews ( $N=3,172$ )

Fixed effects	Empty model	Full model
	Coefficient	Coefficient
<b>Social factors</b>		
<i>Gender (referent is Men)</i>		
Women		2.67 <sup>#</sup> (1.03)
<i>Age (referent is Senior)</i>		
Junior		2.06 (0.84)
<i>Location (referent is Rural)</i>		
Urban		0.55 (0.23)
<i>Bilingualism+schooling(referent is MonoE+)</i>		
MonoE-		0.20 <sup>#</sup> (0.15)
BilingE+		0.37 (0.25)
<b>Linguistic factors</b>		
<i>Syllable structure (referent is CV)</i>		
CVC		1.51 <sup>##</sup> (0.20)
<i>Vowel height (referent is High)</i>		
Low		0.27 <sup>###</sup> (0.05)
Mid		0.26 <sup>###</sup> (0.04)
Tasks		1.40 <sup>#</sup> (0.24)
<b>Intercept</b>	0.07 <sup>###</sup> (0.02)	0.19 <sup>#</sup> (0.14)
<b>Random effect</b>	<b>Variance component</b>	<b>Variance component</b>
Speaker	1.47 (0.44)	0.87 (0.28)
<b>ICC</b>	<b>Coefficient</b>	<b>Coefficient</b>
	0.31 (0.06)	0.21 (0.05)
<b>Model fit statistics</b>		
AIC	1853.7	1745.5
BIC	1865.9	1812.2
LRT $\chi^2$	459.49 <sup>###</sup>	147.52 <sup>###</sup>

###  $p < 0.001$  ##  $p < 0.01$  #  $p < 0.05$

Standard errors in parentheses

**Table A3.** Mixed-effects logistic regression odds ratios predicting nasalization in non-nasal contexts with interaction between task and bilingualism & schooling

Fixed effects	Empty model	Full model
	Coefficient	Coefficient
<b>Social factors</b>		
<i>Gender (referent is Men)</i>		
Women		1.95 <sup>#</sup> (0.59)
<i>Age (referent is Senior)</i>		
Junior		1.76 (0.57)
<i>Location (referent is Rural)</i>		
Urban		0.37 <sup># #</sup> (0.12)
<i>Bilingualism+schooling</i>		
MonoE-		0.16 <sup># #</sup> (0.10)
BilingE+		0.06 <sup># # #</sup> (0.04)
<i>Task</i>		
Individual interview		0.35 <sup># # #</sup> (0.10)
Pair interview		0.36 <sup># #</sup> (0.12)
<i>Interaction</i>		
MonoE- x individual interview		0.96 (0.36)
MonoE- x pair interview		1.86 (0.83)
BilingE+ x individual interview		5.30 <sup># # #</sup> (1.97)
BilingE+ x pair interview		4.07 <sup># #</sup> (1.98)
<b>Linguistic factors</b>		
<i>Syllable structure (referent is CV)</i>		
CVC		1.53 <sup># # #</sup> (0.17)
<i>Vowel height (referent is High)</i>		
Low		0.25 <sup># # #</sup> (0.04)
Mid		0.35 <sup># # #</sup> (0.04)
<b>Intercept</b>	0.07 <sup># # #</sup> (0.02)	0.94 (0.56)
<b>Random effect</b>	<b>Variance</b>	<b>Component</b>
Speaker	1.30 (0.38)	0.52 (0.17)
ICC		
	0.28 (0.06)	0.14 (0.04)
<b>Model fit statistics</b>		
AIC	2520.3	2374.6
BIC	2532.9	2475.9
LRT $\chi^2$	484.6 <sup># # #</sup>	108.9 <sup># # #</sup>

Table A4. Target words

	Gloss		Gloss		Gloss
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.	'calendar'	46. kòbya	'hearse'
		almanak			
7. mo	'word'	27. nat	'mat'	47. wout	'road'
8. lanmò	'death'	28. nap	'tablecloth'	48.	'lizard'
				zandolit	
9. ane	'year'	29.	'fritter'	49. woulib	'car ride'
		marinad			
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.	'shack'	36. bòkò	'vodou priest'	56. makak	'monkey'
kounouk					
17. mouch	'fly'	37. kouto	'knife'	57. taptap	'public bus'
18. klinik	'clinic'	38.	'villain'	58. zak	'crime'
		malfektè			
19. chemiz	'shirt'	39. boul	'soccer ball'	59. tab	'table'
20. tenis	'tennis shoe'	40. bebe	'baby'	60. patat	'sweet potato'

Table A5. Speakers' social profiles

Participants	Sex	Birth		Years of schooling	French proficiency		
		year	Occupation		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 (dropped out)	8-9	6	No
12.	MJUm+12	M	1997	student (dropped 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

Table A5. (continued)

Participants	Sex	Birth		Years of schooling	French proficiency	
		year	Occupation		score	Bilingual
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

Table A6. Rubric for determining speakers' proficiency in French

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

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