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Do regional French accents affect the pronunciation of English? The case of South-eastern French



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Master Études Culturelles du Monde Anglophone

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Sous la direction de
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¹ Special thanks to V. P. for the cover sheet illustration.

Introduction

In a society more and more globalised, learning other languages has become essential and mandatory. Nowadays, the English language is introduced in the French educational system as early as primary school, and pupils really start studying it in middle school. However, French people are internationally known for their terrible skills at speaking English, and this stereotype is often verified. It is quite common to encounter people who are neither able to construct a correct grammatical sentence nor to be understood phonetically, as Sir Anthony Hope Hawkins said “Unless one is a genius, it is best to aim at being intelligible” (*The Dolly Dialogues* no. 15, 1894, as cited in Larousse, “intelligibilité”), that is to be clear enough to be understood (Cambridge Dictionary). Even though it now tends to change, the poor interest accorded to the production of sounds when teaching and learning English may explain this “French weakness”, as the phonetic and phonemic system of a language represents one of the most difficult components for foreign learners to master. However, verifying this stereotype is not the subject here, and neither is the debate over whether or not speakers should erase their native accent when speaking another language.

We do know that a speaker’s native language affects their pronunciation of a foreign language due to the differences in the phonetic and phonemic systems of both languages: vowels, consonants, prominences, prosody, etc. For instance, French and Spanish speakers will not have the same foreign accent when speaking German and will not encounter the same difficulties when learning it. Therefore, if we go further in this reflexion, as different regional accents often coexist within a sole language, one may wonder if they also interfere differently with the acoustic production of a foreign language. In fact, those accents may share the same basis – as they belong to the same language –, but they display their own phonemic features and, sometimes, their own phonological system. One can therefore wonder if those regional accents impact the pronunciation of a foreign language as they impact the native language.

For a French native speaker who has a trained ear, recognising a British speaker from an American one when they speak English is not a problem. However, if they both start to speak French, it will be tougher to recognise their original accent: they will both be acknowledged to have an English foreign accent but it would be hard to tell whether it is British or American. Therefore, a regional accent is not likely to impact the foreign language pronunciation significantly enough to be identified; but can it impact differently the speaker’s learning process of a foreign language pronunciation?

France enjoys a great diversity of regional accents, living testimonies of the country's regional languages that are in danger nowadays, according to Boula de Mareüil in an interview for *Le Monde* (2014). Nevertheless, he adds that regional accents may be just as much in danger as they tend to fade and lessen, in particular among the younger generations, heading towards a homogenisation of French accent.

This study will focus on the pronunciation of English as a foreign language by native South-eastern French speakers localised in the Bouches-du-Rhône. We will compare speakers with a South-Eastern accent with speakers with a standard French accent when they read English. To do so, we will start our study digging in the roots of this regional accent: Provençal. We will then narrow our analysis focusing on the phonemic productions of the written forms <Vn>² and <Vng> in English, French, Provençal, and South-eastern French, focusing our attention on nasal vowels and on the voiced velar nasal [ŋ]. The last section of the first part will deal with the pedagogical approach of English sounds for French learners. The second part will be dedicated to the presentation of our experiment, with details on the method and the building of the corpus. Finally, in the last part, we will analyse and discuss the results of the experiment to answer our hypotheses.

² V stands for 'vowel'.

1. State of the Art

1.1. “Le Français du Midi”

1.1.1. *Provençal, the Origins of the South-eastern Accent*

The South-eastern accent draws its origins from the Provençal language which derives from Occitan, which englobed the whole of the Southern part of France (see fig. 1³). Occitan remained the main language in the West while Provençal developed in the East. It explains the numerous similitudes we can find between the South-western accent and the South-eastern accent⁴.



Provençal was, therefore, the main language spoken in the South East of France during centuries. By the end of the 5th century, Provence was the last Southern region to cede to the 1539 Edict of Villers-Cotterêts, and consequently, French became the official written language (Brun, 1923, as cited in Blanchet, 1992, p. 69)⁵. After the French Revolution in 1789, Provence – which was independent until then – was attached to the young Republic of France by force. Following the failed Provençal Federalist Uprising of 1793, Abbé Grégoire handed out an account according to which “hardly 12% of French people [mastered] French language, and 50% [were] enable to speak it.” (Blanchet, 1992, pp. 86-87). Therefore, local languages became the target of numerous decrees: French became the only authorised language at school and in the judicial domain (Blanchet, 1992, pp. 87-88). A severe repression on regional languages spread among the territory leading to the homogenisation of the language in favour of French. However, it was a long process for Southerners did not speak French fluently until the 19th century, and Provençal was still the mother tongue of most people, especially in the countryside, until the verge of the 20th century (Coquillon & Turcsan, 2012, p. 106). Indeed, the establishment of compulsory schooling by Jules Ferry in 1882 (Ministère de l'Éducation Nationale, de la Jeunesse et des Sports, 2020) intensified the repression on regional languages and, as a result, Provençal, among other languages, nearly totally disappeared little by little.

³ Retrieved on: <https://questionsdeduc.wordpress.com/2012/12/18/les-langues-regionales-a-lecole/>

⁴ For more information on this data, see Courdes-Murphy, 2014.

⁵ For more information on this data, see Blanchet, 1992, pp. 69-73.

Nowadays, it is no longer spoken as an everyday language. Nevertheless, it is still taught in some high schools and associations. Moreover, it is still present in the arts with the pastoral⁶ for example or in popular demonstrations with traditional music, dances and clothes – these representations or events are often linked to religious celebrations (Christmas, Saint Eloi feast, the Eve of Saint Juan, etc.). Nevertheless, Provençal never totally disappeared from the language in the South. Indeed, it substantially influenced the vocabulary with “*frenchified*” words, i.e. Provençal words more or less transformed by French written forms, such as *minot* ‘kid’, *peuchère* ‘poor thing’ or *escagassé* ‘messed up or bored’, or with ready-made Provençal expressions e.g. *fan* (expression of surprise) or *vé* ‘look’ (Coquillon & Turcsan, 2012). But, more importantly, Provençal left a genuine palpable mark on Southerners: their accent.

1.1.2. Presentation of the South-eastern Accent

Qualified as melodious and sometimes mocked, the South-eastern accent is widely known throughout the French territory and beyond, and for good reasons: its singularity and its cultural representation. In fact, it wavers halfway between a source of mocking in humourists’ sketches or comedies such as *Bienvenue chez les Ch’tis* (2008, directed by Dany Boon), and cultural pride, carried by masterpieces such as Marcel Pagnol’s work or spokespersons as the unmissable specialist of Marseilles, Gasquet-Cyrus (a linguist) and his books promoting the culture of Marseilles and its linguistics richness.

To give a non-exhaustive overview of the main phonological features of the South-eastern accent, we will take into account Coquillon & Turcsan’s (2012) analysis of two PFC surveys (*Phonologie du Français Contemporain*) recorded in Marseilles and the surrounding area (pp. 107-125). The South-eastern consonant system is not very different from that of standard French, though we can notice some particularities. This variety – among others – is likely to lose the palatal nasal [ɲ] in favour of the cluster [nj]: *baaignoire* ‘bathtub’ pronounced [beɲwaʁə] in standard French and [benjwaʁə] or even [benwaʁə] in South-eastern French. Then, they expose a tendency to a systematic regressive voicing assimilation of /s/: *socialisme* ‘socialism’ is most commonly pronounced [sosjalizmə]. Finally, they also notice that the younger generation tends to palatize the alveolar plosives /t/ and /d/ before /i/ and /y/: *parti* ‘gone’ might be pronounced [paʁtʃi] and *dur* ‘hard’ [dʒyʁ]⁷.

⁶ Pastoral: religious theatrical representation of the birth of Christ written by Antoine Maurel (1844), entirely performed in Provençal language (spoken and sung) at Christmas, according to departement13.fr (n.d.).

⁷ For more information on this data, see Coquillon & Turcsan, 2012, pp. 108-110.

What substantially distinguishes the South-eastern accent as a variety of French in its own right is its vowel system. First, oral vowels, and in particular the distribution of mid-vowels: as in standard French, we retrieve /E/: [e, ε], /O/: [o, ɔ] and /Ø/: [ø, œ] almost systematically organised according to the *loi de position*⁸, as opposed to the rest of France where it is only ‘a tendency or a preference’ (Gess et al., 2012, p. 3). It consists in the production of [e, o, ø] in open syllables with no schwa syllable after it, e.g. *balai* [bale] ‘broom’, and [ε, ɔ, œ] are realised in closed syllables or open ones followed by a schwa syllable, e.g. *creuse* [kʁœzə] ‘hollow’, *chaude* [ʃødə] ‘hot’⁹. Afterwards, Coquillon & Turcsan (2012) comment on the behaviour of schwa as a weak vowel. According to Lucci (1983), it is in the Southern accents that schwa reaches its maximum of effective realisations (as cited in Coquillon & Turcsan, 2012, p. 115), making it one of the main typical features of the Southern varieties. It is very often present in final position in the written form <Ce#> (pronounced C/ə#/l¹⁰) and in medial position, and is almost always maintained in initial position of polysyllables (#C/ə/CV)¹¹. However, the younger generation tends to be more prone to schwa deletion than older speakers, making the preservation of schwa a conservative feature of the accent that might fade and disappear with time.

The South-eastern accent presents other particular features among which the behaviour of liaison consonants and prosody, of course, not forgetting nasal vowels which we will develop.

1.2. Nasal Vowels and the Voiced Velar Nasal

1.2.1. English

Our study aims to analyse the Southern-eastern French learners’ production of English. Therefore, we will present the phonological features of the latter in order to establish the learning process difficulties or eases that result from the differences or the similarities between both languages.

VOWEL + NASAL CONSONANT

Nasal vowels are absent from the English system, no matter the variety – though nasalization of vowels does happen in English¹² (Cohn, 1993; Ladefoged, 2001, pp. 180-

⁸ For more information on this data, see Gess et al., 2012, p. 3.

⁹ For more information on this data, see Coquillon & Turcsan, 2012, pp. 110-112.

¹⁰ C stands for consonant, and V stands for vowel.

¹¹ For more information on this data, see Coquillon & Turcsan, 2012, pp. 115-119.

¹² For more information on this data, see Cohn, 1993.

182; Gimson & Cruttenden, 2008, p. 36; p. 299) but we will not develop this aspect here. Thus, the written sequence vowel + nasal consonant, <VN>, is always pronounced as an oral vowel + a nasal consonant, V/N/¹³.

The English vocalic system is wider than that of French as it includes the length parameter and displays a larger range of diphthongs (Gimson & Cruttenden, 2008, table 2 p. 91)¹⁴. Therefore, the vowel in V/n/ can be either short, long, or diphthongised: *shin* /ʃɪn/, *sheen* /ʃi:n/, *shine* /ʃaɪn/. Concerning the nasal consonant, its phonetical nasal quality depends on the context to its right, whether it is within the word or if it is followed by another word in a sentence (assimilation) (Gimson & Cruttenden, 2008, pp. 210-214):

VN + dental	V \underline{n} + t, d	'tend ¹⁵	<i>tend</i>
VN + bilabial	V \underline{m} + p, b	'tɛm pʌbz	<i>ten pubs</i>
VN + labiodental	V $\underline{ŋ}$ + f, v	'ɪŋfənt	<i>infant</i>
VN + velar	V $\underline{ŋ}$ + k, g	'fɪŋgə	<i>finger</i>
VN#	V \underline{n} #	'sɪn	<i>sin</i>

VELAR NASAL

Contrary to French varieties systems (see §1.2.2), the voiced velar nasal /ŋ/ is part of the English phonological system in its own right. Indeed, in the special case when a sequence V/N/ is followed by the voiced velar plosive /g/ and a pause, the nasal is not only velarized as it is in *finger* ['fɪŋgə], but /g/ totally falls:

<Vng#>	V $\underline{ŋ}$ #	'sɪŋ	<i>sing</i>
--------	---------------------	------	-------------

The loss of /g/ before /ŋ/ appeared around 1700, first before consonants and then before vowels or pause, nevertheless, it never happened to /k/ which is always kept before /ŋ/ (Gimson & Cruttenden, 2008, p. 213). However, it is worth mentioning that 'Substitution of [ɪŋ] for [ɪŋg] in the suffix *-ing* was fashionable in the eighteenth and nineteenth centuries and remains as an archaic form of RP (e.g. *huntin'*, *shootin'*, and *fishin'*)' (Gimson & Cruttenden, 2008, p. 213). This substitution is also a feature of some varieties of American English, among others. For instance, it is very much noticeable in songs lyrics and titles, e.g. *Long Train Runnin'* by The Doobie Brothers or *I Was Made For Lovin' You* by KISS.

Therefore, the velar nasal is to be found in word-medial position, *singer*, word-medial + /g, k/, *finger* or *tinker*, word-final, *sing*, word-final + /k/, *sink*, and it can also be occasionally

¹³ N stands for nasal consonant.

¹⁴ See Appendix 1.

¹⁵ /ɛ/: following Carr's (2013) convention, closer to the phonetic realisation of the phoneme.

present in word-final syllabic as in *bacon* or *taken* (Gimson & Cruttenden, 2008, p. 212). Notwithstanding, a variation between /ŋ/ and /n/ can occur in *income* or *conclude*, and another variation exists between /ŋg/ and /ŋ/ before /r, l, w/ in *language* or *England* for example, though /ŋg/ is more common (Gimson & Cruttenden, 2008, p. 212). Ladefoged (2001) sums this up by stating that “The English spelling ‘ng’ at the end of a word is nearly always ŋ, and not a sequence of a nasal n followed by a velar stop, g.” (p. 119).

In our study, we will verify if South-eastern French learners are capable of correctly producing those English sounds, that already represent a form of challenge for French speakers in general (see §1.3.1), whether with more difficulty than standard French speakers or with more ease. But first and foremost, we must analyse both the standard French and the South-eastern French systems to understand and anticipate the extent of the challenge.

1.2.2. French

NASAL VOWELS

The main difference between the French and English vocal systems lies in the French nasal vowels, transcribed / \tilde{V} / in the written form <Vn>. According to Fougeron & Smith (1999), “Traditionally, French is described as having four distinctively nasalized vowels, [ɛ̃], [ɑ̃], [ɔ̃], and [œ̃]. However, our speaker like many others, lacks [œ̃], which is replaced by [ɛ̃]” (p. 79). The speaker they are referring to is a young Parisian woman and as a matter of fact, some varieties of French keep making the distinction between [œ̃] and [ɛ̃] – as in the South-eastern accent (see §1.2.4). Gess et al. (2012) suggest that the marginalised [œ̃] is “considered very conservative, i.e. reflective of a norm that is more or less in the past” (p.2).

ɛ̃	pɛ̃	<i>pain</i>	‘bread’	ɛ̃	bʁɛ̃	<i>brin</i>	‘sprig’
ɑ̃	pɑ̃	<i>paon</i>	‘peacock’	œ̃	bʁœ̃	<i>brun</i>	‘brown’
ɔ̃	pɔ̃	<i>pont</i>	‘bridge’				

To comment on their articulation: [ɛ̃] is a mid-low, front, unrounded vowel; [œ̃] is mid-low, front, rounded; [ɑ̃] is low, back, unrounded; and [ɔ̃] is mid-low, back, rounded (Gess et al., 2012, p. 4). Fougeron & Smith (1999) develop:

The vowel [ɛ̃] is produced with tongue and lip position very similar to its oral counterpart [ɛ]; however, several articulatory studies (e.g. Zerling 1984; Lonchamp 1988) have suggested that [ɑ̃] and [ɔ̃] differ substantially from their supposed oral counterparts [ɑ] and [ɔ]. The position of the tongue is similar in [ɑ̃] and [ɔ̃], and the main articulatory difference is that [ɔ̃] has a greater degree of lip rounding. (p. 79)

Zink (1986) presents vowel nasalization as one of the main distinctive features of the French vowel system (p. 81). He states that, even though nasal vowels exist in other European languages – as Polish and Portuguese –, none of them grant nasalisation an extension as strong as the French phonemic system does (Zink, 1986, p. 81). Moreover, Maddieson (1983a) assures that “The most common minor vowel feature is nasalization, with more than one language in five using this possibility” (as cited in Ladefoged & Maddieson, 1996, p. 298). They extend their description of this phonemic phenomenon to contextual nasalization that produces different degrees of vowel nasalization:

Nasalization appears to be a binary feature from a phonological point of view. But there are surface phonetic contrasts between oral, lightly nasalized, and heavily nasalized vowels in some languages. This usually occurs when a language with a phonological contrast between oral and nasalized vowels in addition has oral vowels that are contextually nasalized when adjacent to a nasal consonant (Ladefoged & Maddieson, 1996, p. 298).

Ladefoged and Maddieson (1996) illustrate this statement with a comparison of the nasal flow patterns of three French words (based on data in Cohn, 1990; p. 299):

ɔ̃n	bɔ̃nɛ	<i>bonnet</i>	‘cap’
ɔ̃n	nɔ̃nɛt	<i>nonnette</i>	‘young nun’
ɔ̃n	nɔ̃nɛtʁ	<i>non-être</i>	‘non-entity’

The first vowel is an oral vowel placed before a nasal consonant and it is contextually nasalized on its last part; the second one is placed between two nasal consonants and is thus more nasalized; and the third vowel is even more nasalized for it is also placed in the same context as the previous one, but it is a phonologically nasalized vowel (Ladefoged & Maddieson, 1996, pp. 298-299).

VELAR NASAL

As said in the previous part, the voiced velar nasal /ŋ/ is a typical English phoneme, though its place in Latin languages and in French is more questionable.

Originally, in Latin, the voiced velar nasal is only to be found in separated consonant clusters as being the first element, in implosive position, before an occlusive, k, g, or n (Zink, 1986, p. 112). When it is before /k/ or /g/, the velar nasal is written <n>, but before the nasal /n/ it is written <g> as to express its velar articulation – for the velar nasal is a nasalised combinatory variant of /g/ (Zink, 1986, p. 112).

ŋg	anɟel-	<i>angelus</i>	‘angel’
ŋn	puŋnum	<i>púgnum</i>	‘fist’

Thus, one may wonder if this pattern persisted in French. According to Fougeron & Smith (1999), the voiced velar nasal only exists in the French phonemic system “in final position in borrowed (usually English) words” (p. 80).

ŋ paʁkiŋ *parking* ‘parking lot’

Zink (1986) agrees and adds the case of occasional sequences in connected speech with quick delivery (p. 27):

ŋ lãŋ(g)m- *langu(e) morte* ‘dead language’

Gess et al. (2012) also describe the velar nasal as a borrowed marginal phoneme within the French system though it “appears to becoming entrenched” (p. 5).

Therefore, even though it is scarcely used in French, /ŋ/ does not seem to be an issue for French speakers, in particular in English borrowed words, in theory though (see §1.3.1).

1.2.3. Provençal

Before studying the South-eastern accent, we need to understand its formation and therefore explore its phonological origins: the Provençal system.

In Provençal, the vowel nasalization system is very distinct from the French one in the written form <Vn>. In fact, it is closer to romance languages such as Castilian (Spain) and Tuscan (Italy) (Blanchet, 1992, pp. 174-175). Blanchet (1992) postulates that the nasalization of a vowel results in a nasal occlusive following an oral vowel that can be phonetically partially nasalized, thus rejecting the existence of nasal vowels in Provençal (p. 174). He explains that this partial nasalization¹⁶ does not apply on every vowel, especially the closed ones, and is more marked in the Rhône valley and the Hautes-Alpes (Blanchet, 1992, p. 174). The progressive and incomplete nasalization of the vowel is due to the progressive lowering of the velum before the end of the pronunciation of the vowel in order to prepare the nasalization of the following consonant (Blanchet, 1992, p. 173).

Moreover, as in English, the nasal consonant is also phonetically impacted by the consonant that follows it (Blanchet, 1992, p. 173):

VN + dental	n + t, d	kânta	<i>canta</i>	‘sing’
VN + bilabial	m + p, b	kâmbɔ	<i>cambo</i>	‘leg’
VN + velar	ŋ + k, g	âŋkɔ	<i>anco</i>	‘hip’
VN + other consonant	ŋ + C	pêŋsa	<i>pensa</i>	‘think’
VN#	ŋ#	âŋ	<i>an</i>	‘year’

¹⁶ Partial nasalization transcribed [ˆ] by Blanchet instead of [̃], e.g. [kânta].

Therefore, we can assume that the voiced velar nasal [ŋ] is much more present in Provençal than it is in French, and in particular in the context of the vowel nasalization when the nasal is systematically velarized unless it is followed by a dental, a bilabial or a labiodental consonant. Now, we are going to try and find out if this Provençal particularity influenced the French nasal system in the South East.

1.2.4. South-eastern Accent

As we said earlier, the South-eastern variety is one of the scarce varieties to maintain the distinction / $\tilde{\epsilon}$ - $\tilde{\text{œ}}$ /:

$\tilde{\epsilon}$	b $\tilde{\text{œ}}$	<i>brin</i>	‘sprig’		-p $\tilde{\text{œ}}$ t	<i>empreinte</i>	‘footprint’
$\tilde{\text{œ}}$	b $\tilde{\epsilon}$	<i>brun</i>	‘brown’		-p $\tilde{\epsilon}$ t	<i>emprunte</i>	‘borrows’

In their study, Coquillon & Turcsan (2012) acknowledge the maintenance of the four French nasal vowels in the South and comment on their particular pronunciation that characterises a Southern accent¹⁷: “They start as an oral vowel with possible regressive nasalisation and end with a consonantal nasal appendix”, which makes those nasal vowels somewhat longer than in standard French (p. 113). Therefore, the pronunciation of a nasal vowel written <Vn> is either / \tilde{V}^N / or / V^N /, while it is / \tilde{V} / in standard French. This phenomenon reminds us of the Provençal pronunciation and shows its undeniable influence on the accent. Indeed, we saw that the vowel can be oral or partially nasalised, and the nasal consonant is always pronounced and is systematically velarized unless it is followed by a dental, a bilabial or a labiodental consonant (see §1.2.3). In the Southern variety, the phonetic nature of the nasal appendix is determined by the same rule: it depends on the context to its right. Before a consonant, the appendix is homorganic, and before a pause it is velarized (Coquillon & Turcsan, 2012, p. 113).

\tilde{V}^N + dental	\tilde{V}^n + t, d	t $\tilde{\text{ã}}^n$ d $\tilde{\text{æ}}$	<i>tendre</i>	‘soft’
\tilde{V}^N + bilabial	\tilde{V}^m + p, b	ð $\tilde{\text{m}}^m$ b $\tilde{\text{æ}}$	<i>ombre</i>	‘shadow’
\tilde{V}^N + labiodental	\tilde{V}^m + f	ã $\tilde{\text{m}}^m$ f-	<i>enfin</i>	‘finally’
\tilde{V}^N + velar	$\tilde{V}^ŋ$ + k, g	ẽ $\tilde{\text{ŋ}}^k$ -	<i>inconvenient</i>	‘inconvenience’
\tilde{V}^N #	$\tilde{V}^ŋ$ #	pẽ $\tilde{\text{ŋ}}$	<i>pain</i>	‘bread’

This is also Martinet’s assumption (1945): if he describes nasal vowels as independent phonemes in standard French, he postulates for phonemic groups of oral vowels and nasal consonants in Southern French (as cited in Courdès-Murphy, 2018, p. 302). “Dans le Midi

¹⁷ Brun (1931), Séguy (1950) and Durand (1988).

les voyelles nasales sont toujours suivies d'une occlusion, quelque fugace soit-elle, et il n'y a pas de doute 'an, on, in' et 'un' doivent être interprétés comme des combinaisons de deux phonèmes." (Martinet, 1945, as cited in Blanchet, 1992, pp. 172-173).

Concerning the vowel, on whether it is oral or nasal, Carton et al. (1983), Séguy (1951), Brun (1931) and Walled (1982) all describe a phenomenon of 'de-nasalization', i.e. the phonologic inventory of Southern speakers does include nasal vowels but, in the process, they are de-nasalized into oral vowels (as cited in Courdès-Murphy, 2018, p. 324). In that case, they automatically consider that both Southern and standard French share the same phonologic system, though Durand (1988) disagrees and postulates for a proper Southern French phonological system (as cited in Courdès-Murphy, 2018, p. 324). Consequently, he proposes a sequence vowel + nasal segment (VN) for nasal vowels (Durand 1988, 2009, as cited in Coquillon & Turscan, 2012, p. 113). Coquillon & Turscan (2012) notice that it is in fact very common to observe oral vowels before the liaison consonant [n] as in *en août* [anut] for example; though they observed fewer occurrences than Durand (2009) in his study, acknowledging this phenomenon as being somewhat conservative.

On the other hand, during the 1930s, Brun (1931) states that there are no such nasal vowels as those of standard French and he postulates for an incomplete nasalization of the vowels – as it is in Provençal (as cited in Courdès-Murphy, 2018, p. 21). According to him, the sequence is an oral sound extended by a nasal sound, i.e. the vowel has an oral quality and is partially nasalized during its production as in *charbon* [ʃarbɔ̃ð] (charcoal). When the sequence is followed by a consonant, the vowel is purely oral and the nasal consonant is present as a nasal resonance between the vowel and the consonant.

However, in their study, Coquillon & Turscan (2012) reveal an important inconsistency in the speakers' production of both oral or nasal quality of the vowel and the appendix nasal quality (p. 114). In fact, for *brun* they find: [œ̃, œ̃[̃], œ̃^m, œ̃ⁿ, œ̃ⁿ, œ̃^{̃n}] among all the speakers, and, for example, the same speaker produced *brin*, *brun*, *blanc* and *blond* [ɛ̃ⁿ, œ̃ⁿ, ɑ̃ⁿ, ð]. This data highlights the unstable nature of nasal vowels in Southern French.

Concerning the velar nasal, as in standard French and Provençal, it is not part of the phonological system, though it is present in the phonetic appendices following a nasal vowel segment, as we saw it.

1.3. Learners: from French to English

1.3.1. *The Issues of the French Nasal Vowels and the English Velar Nasal*

In a context of language learning, we must take a look at the phonetic difficulties French learners are inclined to face when speaking English.

Regarding the influence of nasal vowels on French learners, Gimson & Cruttenden (2008) advise them to carefully avoid using ‘undue nasalization in words of French origin which suggest modern French forms, e.g. *branch*, *plant*, etc.’ (p. 119).

As for Herry-Bénil (2011), she lists the most common mistakes made by French learners in English pronunciation: she aims at facilitating teachers’ recognition of students’ errors in order to help them establish oral evaluation grids (pp. 77-91). Regarding the velar nasal /ŋ/, contrary to what we saw earlier, she states that French learners do not pronounce the written form <-ng> properly, i.e. as a velar nasal, but as /n + g/ (Herry-Bénil, 2011, p. 84). In fact, she explains that, although the /g/ sound is not heard, French people tend to pronounce it and forget to produce the /ŋ/ (Herry-Bénil, 2011, p. 84). The velar nasal is also forgotten in /ŋk/ sequences: /nk/ (Herry-Bénil, 2011, p. 84). In the chapter entitled ‘*L’art de corriger les erreurs*’ (pp. 93-104), Herry-Bénil (2011) establishes pedagogical strategies for teachers to help their French learners to properly pronounce the English sounds. To master the voiced velar nasal pronunciation, she suggests learners should produce an [n] and then produce it again while holding their nose in order to feel the air exhaled during the pronunciation (Herry-Bénil, 2011, p. 99). Then, they have to produce a [g] and pronounce a sort of [ŋ] in the same place of the mouth (place of articulation) as that of the [g] to obtain the wanted [ŋ], while holding their nose once again (Herry-Bénil, 2011, p. 99).

However, the use of such pedagogical tools is not yet popularised among English teachers. In fact, we suppose that some of them do not have enough time to pay such meticulous attention to pronunciation in class. Therefore, the difficulty of pronouncing the sound /ŋ/ for French learners may persist indefinitely if never corrected.

1.3.2. Comparative Study and Hypotheses

We gathered the results of our research in the following table:

Table 1. Realisations of the VN sequence according to the context to the right in Latin, Standard French, Provençal, South-eastern French, and English

	Latin	Standard French	Provençal	South-eastern French	English
<Vn#>	Vn	\tilde{V}	V η	\tilde{V}^n or V n	Vn
<VnC>	VNC	$\tilde{V}C$	VNC	\tilde{V}^{nC} or V nC	VNC
<Vng->	V η g (V η n for <Vngn->)	$\tilde{V}g$	V η g	\tilde{V}^ng or V ng	V η g
<Vng#>	No data	V η	No data	No data	V η

Surprisingly enough, we can acknowledge in table 1 that Provençal and English have a rather close way to treat those written forms – though their actual pronunciations are very different because of the vowels. Therefore, we notice that the South-eastern accent is somewhat closer to the English pronunciation than standard French.

We will now focus on the <Vng#> line in table 1. As we already said, this written form is very specific to English. Hence, we can retrieve no data in Latin and Provençal for there is no occurrence of this written form in those languages. On the other hand, the pronunciations in French and in English are the same, V/ η /, because, as a reminder, the written form <Vng#> is only present in French in borrowed English words, hence the similar pronunciation. This written form is, therefore, equally present in Southern French, though its pronunciation is not verified. In fact, we found no data on Southerners' pronunciation of English words, but we can build theoretical hypotheses.

First and foremost, we will reflect on whether the vowel is oral or nasal. As we saw, Southerners can produce both in an unstable way. However, since English does not admit nasal vowels and standard French appears to adapt to it, it seems logical to imagine it as an oral vowel for South-eastern French speakers too.

We can now wonder if the original English pronunciation is respected or not. We know that, theoretically, South-eastern speakers are physiologically capable of producing [V η] as they can pronounce [V n] for the written form <Vn#>. However, we must take into account the potential confusion that the written form may produce. Indeed, the presence of the <g> may encourage the speaker to pronounce it as if there was no pause, i.e. [V ng] (as for <Vng-

>), not forgetting either the impact of the schwa which is very often present in final position in the written form <Ce#> (pronounced C/ə/#) (see §1.1.2). Therefore, we may encounter this type of production: [V^ŋgə]. Finally, the preservation of the appendix may not be verified as the English pronunciation leads to fully produce the nasal consonant.

As a result, the possible pronunciations for <Vng#> borrowed English words in French are the following:

V ^ŋ	-kɪ ^ŋ	<i>parking</i>	‘car park’
V ^ŋ g	-kɪ ^ŋ g	<i>parking</i>	‘car park’
V ^ŋ gə	-kɪ ^ŋ gə	<i>parking</i>	‘car park’

Therefore, contemplating the dropping of the appendix in favour of the full nasal consonant, the pronunciations for <Vng#> words in English may be the following:

V _ŋ	-kɪ _ŋ	<i>parking</i>	(to park)
V _ŋ g	-kɪ _ŋ g	<i>parking</i>	(to park)
V _ŋ gə	-kɪ _ŋ gə	<i>parking</i>	(to park)

Consequently, the presence of the nasal appendix in the accent may facilitate the English production of the velar nasal although the presence of schwa in final position may produce incorrect pronunciations by the learners. In fact, as stated by Herry-Bénil (2011) (see §1.3.1), standard French learners are already rather inclined to pronounce a final /g/, normally silent, but this challenge may represent an even greater difficulty for South-eastern speakers whose reflex will be to hypothetically pronounce it with an extra mark on it, /gə/, because of the written form.

Therefore, our experiment will explore the following hypotheses:

- The vowel quality: though it should always be oral, some speakers may produce nasal vowels, and South-eastern speakers may even add a nasal appendix to it.
- The production of /ŋ/ should represent a greater difficulty for standard French speakers than for South-eastern ones.
- The voiced velar occlusive /g/, and eventually /ə/, may be more recurrent in South-eastern speakers’ speeches than in those of standard French speakers.
- Different written forms <Vn>, <Vn’> and <Vng> may influence the speakers, as well as the context to the right of the <Vng> segment: vowel, consonant or nothing.

2. Method and Corpus

2.1. Protocol

2.1.1. Method

In order to fulfil this study, we proceeded to an oral experiment, thus requiring an oral corpus. According to Sinclair (1996), a corpus is “a collection of pieces of language that are selected and ordered according to explicit linguistic criteria in order to be used as a sample of the language” (p. 4, as cited in Herment, 2013, p. 25). Therefore, our corpus must be carefully constructed in order to answer our problematic. Gibbon et al. (1997) also add that “A corpus is any collection of speech recordings which is accessible in computer readable form and which comes with annotation and documentation sufficient to allow re-use of the data in-house, or by scientists in other organisations.” (p. 79, as cited in Herment, 2013, p. 26). Consequently, the restitution of the building of the corpus also constitutes an important data that should not be left aside, in a spirit of scientific sharing.

Our experiment is divided in two phases. First, the speakers were recorded in French, in the form of an interview. The questions asked corresponded to those of the speakers’ information sheet. The purpose of this phase was to verify whether the speakers had a South-eastern French accent or not. In that way, they were submitted to the validation of a sample group: French people of different age, gender, and origin. After listening to the audios, the volunteers anonymously answered a poll¹⁸ in the form of a Likert scale, which perfectly fits the experiment objectives. According to Jamieson (n.d.) in Britannica, a Likert scale, named after the American social scientist Rensis Likert in 1932, is a “rating system, used in questionnaires, that is designed to measure people’s attitudes, opinions, or perceptions. Subjects choose from a range of possible responses to a specific question or statement; responses typically include “strongly agree,” “agree,” “neutral,” “disagree,” and “strongly disagree.” (para. 1).

After this validation phase, the speakers were recorded in English. According to Ballier & Martin’s (2013a) typology, as we aim to a phonetic study, we automatically deal with a phonetic corpus, i.e. a corpus built for an analysis of segmental or suprasegmental phonologic systems (as cited in Herment, 2013, p. 29) – segmental in our case. As we set our sights on studying the specific segment <-Vn(g)>, the tool used was part of the “*corpus de parole*” category, i.e. a corpus designed for experimental recordings, according to the typology of corpora collected by Delais-Roussarie (2003, as cited in Herment, 2013, p. 26).

¹⁸ The poll was written in French, the sample group members’ mother tongue.

The requirements of the exercise constrain us to limit the experiment to a single restricted corpus orientated towards our study subject. Therefore, the chosen form of corpus was a list of sentences carefully constructed to shed light on the speakers' behaviour regarding the pronunciation of <-Vn(g)> and, thus, to validate or refute our hypothesis according to which the maternal regional accent can influence the pronunciation of a foreign language. To do so, we compared our South-eastern speakers with an equally numbered control group, i. e. speakers with no regional accent, representing a standard French. Therefore, both groups were composed of four speakers in order to respect the restricted length of the TER exercise.

2.1.2. Recording Data

Regarding the sound quality, as no acoustic analysis will be applied on this corpus, there is no need for us to record in an anechoic chamber or in a recording studio; though it is the best acoustic environment for our type of corpus (list of sentences) for it demands no spontaneity from the reader (Herment, 2013, p. 33). However, the speakers were recorded in a room as isolated as possible from any noise pollution. Furthermore, in order to realize the experiment in a Covid-free environment¹⁹ and to prevent the observer's paradox discomfort (Labov, 1972, as cited in Herment, 2013, p. 34), the readers were asked to record themselves with their own smartphones (Apple, Samsung, Huawei) on Dictaphone applications, on condition that the recording was clear enough after verification, otherwise they could be asked to do it again – it did not happen though. They sent their files via email, in .m4a or .aac²⁰ formats. The sound quality was very good, and the voices were audible enough to be analysed in good conditions. Once again, these are not the best working conditions, and it is certain that an acoustic analysis would have been compromised if we had had the intention and possibility to perform one.

The readers were asked to perform the two phases of the experiment in a single recording: they were given a blank information sheet that they had to answer orally in French, and then, they read the list of sentences in English. However, two speakers did not follow the instruction: FRS1 sent two recordings, one for each phase, and FRS4 sent five recordings because she cut every time her tongue slipped. Nevertheless, there was no repetition and the recordings just had to be listened to one after the other.

¹⁹ Experiment realized during the Covid-19 sanitary crisis in 2020.

²⁰ AAC, Advanced Audio Coding, is the audio coding standard for irreversible digital audio compression that replaced the MP3 format (higher sound quality at the same bit rate). The files created with this audio coding can bear indifferently in the extension .aac or .m4a, among others.

2.1.3. *The Documents Filled by the Speakers*

In order to respect the traceability and the continuity of the research (Baude et al., 2006, p. 25, as cited in Herment, 2013, p. 37), the speakers had to fill in an information sheet²¹. The basis chosen to build this document was the sample given by Herment (2013, pp. 201-203): some irrelevant questions were removed as to adapt to our specific experiment. The participants also had to sign a juridical document, the informed consent release form²² of the *Laboratoire Parole et Langage* (LPL), a disclaimer that gives us the right to use the speakers' recordings for the experiment.

The problem was that, since the experiment was lead remotely, handing in those documents was not that simple for everyone. In fact, only three participants were equipped with a printer or a scanner, the others did not have such devices at home. It was, therefore, impossible for them to print and scan the documents. Fortunately, some of them were able to sign the informed consent release form with a digital signature or made one with a picture of their signature. Concerning the information sheet, they were filled for them from the answers they gave in their recordings (see §2.1.1). Those who were not precise enough in their recordings were called for an additional interview. As a result, and surprisingly enough, this stage of the experiment was the most challenging one because of the sanitary context.

2.2. The Speakers

2.2.1. *Selection Criterion*

First and foremost, since the experiment focuses on an accent of a specific geographic area, the South-eastern speakers have to be born in the Bouches-du-Rhône and must have lived there for their entire life or at least the greater part of it. Of course, those four speakers must bear a marked accent, hence the validation phase (see §2.2.2). On the other hand, the control group speakers must have no regional accent and their location is not taken into consideration. In order to have the most homogeneous panel of speakers, we selected only women between twenty and thirty-five years old. Regarding their English level, they must have had a good level at the end of high school (at least B2) and they should not have studied English as their main domain in their higher education: they simply had to be able to speak English with fluidness.

²¹ See Appendix 2.

²² See Appendix 3.

2.2.2. Validation Phase of the Speakers

METHOD

As said earlier, all the speakers from both groups were submitted to the validation of a sample group of twenty-five people who had to assess whether the speakers had a South-eastern French accent or not. Only the French part of the speakers' recordings was listened to and judged by the sample group in the form of a Likert scale poll.

In the first place, the poll was created with Word, and designed to be printed for people to tick the boxes directly by hand. Therefore, they would have listened to the recordings and given the sheets out on the occasion of a meeting. However, we had to adapt to the sanitary situation and avoid any unnecessary meeting or hand to hand exchanges. Thus, this part of the experiment was totally revised: a Google Form was created²³ so that people were able to listen to the recordings and answer the poll at home. This solution also enabled more people, who lived further away, to participate. The website Google Forms only allows Youtube videos to be included, not audio files. Therefore, the recordings were edited and gathered in a single video (with Shotcut video editor), and posted on Youtube as an unlisted video, i.e. the video can only be retrieved with its link, otherwise it does not appear on the website, therefore the data recorded remain protected.

Ten women accepted to participate in the experiment, and they were randomly attributed a colour and a number (e.g. 'Locutrice n°1', i.e. 'speaker no. 1') in the video and in the Google Form. For each speaker, the participants had to judge if the speaker had a South-eastern accent, and if they did, the participants had to define at which intensity (see fig. 2).

La locutrice n°1 parle avec un accent du sud-est... *

D'accord

Plutôt d'accord

Difficile à dire

Pas vraiment d'accord

Pas d'accord

Si oui, son accent est-il...

Très marqué (fort)

Marqué (moyen)

Léger (faible)

Difficile à dire

Figure 2. Questions asked to the participants in the Google Form

²³ See Appendix 4.

Finally, the participants were asked about their gender and age, the place where they had lived most of their life, and if they had a South-eastern accent themselves.

RESULTS

Google Forms automatically generated graphics out of the results of the poll²⁴. Twenty-five persons responded to the poll: 60% of them were under 29 years old, most of them were women (76%), almost all of them have lived in the South for most of their lives (92%), and 40% of them considered having a South-eastern accent themselves (44% considered to have none, 16% did not know). The results of their answers were collected in the following table:

Table 2. *Results of the Google Form poll*

	Presence of the accent	Accent strength	Code name for the experiment
Speaker 1	Strongly disagree (60%) Disagree (32%)	-	FRS1
Speaker 2	Strongly disagree (36%) Disagree (20%)	-	
Speaker 3	Strongly disagree (76%) Disagree (16%)	-	FRS2
Speaker 4	Strongly agree (52%) Agree (36%)	Medium (47,8%) Strong (30,4%)	SEFR2
Speaker 5	Strongly disagree (44%) Disagree (24%)	-	FRS3
Speaker 6	Agree (44%) Strongly agree (24%)	Light (52,6%) Medium (31,6%)	
Speaker 7	Strongly agree (32%) Agree (32%)	Light (50%) Medium (40%)	SEFR3
Speaker 8	Strongly disagree (64%) Disagree (24%)	-	FRS4
Speaker 9	Agree (48%) Strongly agree (40%)	Medium (52,2%) Strong (26,1%)	SEFR1
Speaker 10	Strongly agree (88%) Agree (12%)	Strong (60%) Medium (36%)	SEFR4

Consequently, the eight speakers needed were selected and attributed a code name for the experiment (last column of table 2). Speaker 2 was eliminated because the answers on her potential accent were too disparate. Then, although she was mainly considered to have a South-eastern accent, speaker 6 was also eliminated because she was one of those who had the lightest accent and she was the one with the lowest English level (A2).

²⁴ See Appendix 5.

2.2.3. Description of the Speakers Selected

The speakers are divided in two groups: the SEFR group (South-eastern French speakers), and the FRS group (standard French speakers). The followings are the speakers selected after the validation phase:

Table 3. *Informations on the speakers*

Speaker	Age	Place ²⁵	Education	Eng. level	S-E. accent
SEFR1	21	Birth: Aubagne (13) Residence: Aubagne (13)	A-level in management (STMG)	B2	Medium: -velarised nasal vowels -extra schwas
SEFR2	23	Birth: Marseille (13) Residence: Marseille (13)	Engineering and management degrees	C1	Medium: -Provençal accent -extra schwas
SEFR3	25	Birth: Marseille (13) Residence: Aix-en-Pce (13)	Biology (MSc)	B2/C1	Light: -extra schwas -emphasised in English speech
SEFR4	35	Birth: Aubagne (13) Residence: Carnoux (13)	Nursing and childcare studies	B2	Strong: extra schwas
FRS1	24	Birth: Lyon (69) Residence: Marseille (13)	Biology (MSc)	B2/C1	None
FRS2	21	Birth: La Ciotat (13) Residence: Paris (75)	Fine arts (1 year), law degree	C2	None
FRS3	23	Birth: Porto-Vecchio (2A) Residence: Porto-Vecchio (2A)	Biology (MSc)	B2/C1	None: Corsican origins but has no Corsican accent
FRS4	22	Birth: Tourcoing (59) Residence: Aix-en-Pce (13)	Master of Law (first year)	B2/C1	None

²⁵ The numbers next to the cities cited correspond to the French department they belong to: Bouches-du-Rhône (13), South-east of France; Southern Corsica (2A), in Corsica, French island on the South-east of the mainland; Rhône (69), east-central France; Paris (75); Nord (59), extreme North of France.

10. In **Hong Kong**, some people speak English though their mother **tongue** is
'hʊŋ 'kɔŋ s- 'tʌŋ ɪ-
Cantonese.

There are twenty-eight <Vng> or <Vn'> occurrences among which eighteen <-ing>, six <-ong>, two <-ang> and two <-ung>, in order to test various vowel combinations. Then, there are five occurrences of English words used in French, three /ŋ/ and /n/ minimal pairs, four <Vn'> forms among which one occurrence of a word is present both in its <Vng> form and in its <Vn'> form. Finally, there are fifteen occurrences of <Vng, Vn' + V>, ten occurrences of <Vng, Vn' + C> and three occurrences of <Vng#>.

3. Analysis

3.1. Auditive Analysis

Table 4. Auditive analysis of the speakers' recordings

	SEFR1	SEFR2	SEFR3	SEFR4	FRS1	FRS2	FRS3	FRS4
'bəʊliŋ æ-	i ^ɪ ŋg(ə)	iŋ	i ^ɪ ŋgə	iŋ	iŋ(g)	iŋ	iŋ(g)	iŋ
'bəʊliŋ #	i ^ɪ ŋg(ə)	iŋg	iŋg(ə)	iŋ(g)	iŋg	iŋ	iŋ(g)	iŋ(g)
'ræn ə-	ʌn	ãn	an	ʌn	ən	æn	an	ʌn
'ræŋ ə-	ãg	ãŋg(ə)	ãŋ(g)	ãŋ(gə)	ãŋ(g)	ãŋ(g)	æŋg	eŋg
'dʌŋ #	œ ^ɪ g	ʌŋg(ə)	œŋg	œŋg	œŋg	ʌŋg	œŋg	ʌŋg
'reɪniŋ b-	iŋgə	iŋ	iŋ	i ^ɪ ŋ(gə)	iŋ	iŋ(g)	iŋ	iŋ
'pɑ:kɪŋ l-	iŋg(ə)	iŋ	iŋ	iŋ(gə)	iŋg	iŋ	iŋg	iŋg
'sɪŋiŋ d-	iŋgi ^ɪ ŋgə	iŋgiŋ	iŋgiŋ(g)	iŋ(g)iŋ	iŋgiŋ	iŋgiŋ(g)	iŋgiŋ	iŋgiŋ
'dɑ:nsɪŋ dʒ-	i ^ɪ ŋgə	iŋ	iŋ(g)	iŋ	iŋ	iŋ(g)	iŋ	iŋ
'dʒʌmpɪŋ ə-	i ^ɪ ŋgə	iŋ	iŋ	iŋ(g)	iŋg	iŋ(g)	iŋ	iŋ(g)
'swɪŋiŋ #	imi ^ɪ ŋgə	iŋgiŋg	iŋgiŋ(g)	iŋgiŋ(g)	iŋgiŋg	iŋ ^ɪ iŋ(g)	iŋ ^ɪ iŋg	iŋiŋ(g)
'pleɪŋ aɪ	iŋg(ə)	i ^ɪ ŋg	i ^ɪ ŋg	iŋg	iŋg	iŋ(g)	iŋg	iŋ(g)
'lʌvɪn ju	m	m	iŋ(g)	iŋ(g)	iŋ	iŋ	ɪn	iŋ
'lʌvɪŋ i	iŋ(g)	iŋg	iŋg	iŋ	iŋg	iŋ(g)	ɪn	iŋ
'ʃɒpɪŋ ə-	iŋg	iŋ(g)	iŋg	iŋg(ə)	iŋg	iŋ	iŋ(g)	iŋg
'wɒndəriŋ ə-	iŋ(gə)	iŋg	iŋg	iŋgə	iŋg(ə)	iŋ(g)	iŋ	iŋ(g)
ə'ləŋ ɪ-	ɒŋ(gə)	ðŋg	ɒŋg	ɒŋg	ɒŋg(ə)	ɒŋ	ɒŋg	ɒŋg
'wɒʃɪŋtən	ɪntən	ɪntən	iŋ ^ɪ tən	ɪntən(ə)	iŋ ^ɪ tən	iŋtən	iŋ ^ɪ tən	ɪntən
'fi:lɪŋ ə-	iŋg	iŋg	iŋg	iŋg	iŋ(g)	iŋ(g)	iŋg	iŋ(g)
'sprɛdɪn ə-	m	iŋ(g)	iŋ(g)	iŋ(g)	iŋ(g)	iŋ	iŋ(g)	iŋg
ə'mʌŋ ʌ-	ɔŋg	ɒŋg	ð ^ɪ ŋg	ʌŋ	ɒŋ	ɒŋg	ɒ ^ɪ ŋg	ɒŋg
'wɒʃɪn ð-	iŋ	iŋ(g)	iŋ(g)	iŋ(gə)	iŋ	iŋ	iŋ	iŋ
'rəʊlɪn w-	iŋ	iŋ	iŋ	iŋ	iŋg	iŋ	ɪn	iŋ
'sɪn t-	ɪn	ɪn	iŋ	ɪn	ɪn	ɪn	ɪn	iŋ
'sɪŋ ə-	iŋg(ə)	iŋg	iŋ(g)	iŋg(ə)	iŋg	iŋ(g)	iŋg	iŋg
'sɒŋ ə-	ð ^ɪ ŋg(ə)	ɔŋg	ɒŋg	ð ^ɪ ŋ(gə)	ɒŋg	ɒŋ(g)	ɒŋ(g)	ɒŋg
'æŋgri	ʌŋg	ʌŋg	æŋŋg	hʌŋg	ʌŋg	æŋg	æŋg	ãŋg
'dæn ə-	æn	an	an	an	an	an	an	an
'flʌŋ ɪ-	œŋ(g)	ʌŋ	ʌŋ(g)	œŋ(g)	ʌŋg	ʌŋ(g)	ʌŋg	ɒŋg
'dæŋ s-	ẽŋg	ẽŋg	ẽŋ(g)	æŋ(k)	æŋ(g)	ɑ:ŋg	ʌŋg	eŋg
'hɒŋ k-	ɔŋ k	ɒŋ k	ðŋ k	ɒ ^ɪ k	ɒŋ k	ɒŋ k	ɒn#k	ɒŋ k
'kɒŋ s-	ðŋgə	ɒŋ(g)	ð ^ɪ ŋg	ð ^ɪ ŋ(gə)	ɒŋg	ɒŋg	ɒŋg	ɒŋ(g)
'tʌŋ ɪ-	ðŋg	ɒŋg	ðŋg	ðŋg(ə)	ɒŋ(k)	ɒŋg	ðŋg	ɒŋg

This auditive analysis was a complex exercise and an acoustic analysis could allow sharpening the results in a more advanced research work.

3.2. Results and Discussion

3.2.1. Vowels

In this experiment, we focused on the speakers' vowel quality production: whether it was oral [V] or nasal [Ṽ], and if it bore a nasal appendix [ŋ] or not. It did not matter if the vowel pronounced was correct or not, e.g. [ʌ] or [a] instead of [æ]. As established earlier (see §1.2.1), the [V] model corresponds to the standard English pronunciation. The other models, [V^ŋ, Ṽ, Ṽ^ŋ], are mispronunciations influenced by French and South-eastern French accents.

There are thirty-one <Vng, Vn', Vn> occurrences in the corpus, and they were collected in the following tables, based on the outcomes of table 3 (see §3.1).

Table 5. Occurrences of the vowel models in the <Vng, Vn', Vn> segments

	SEFR1	SEFR2	SEFR3	SEFR4	FRS1	FRS2	FRS3	FRS4
V	17	26	22	23	29	30	28	31
V ^ŋ	7	1	2	2	0	0	1	0
Ṽ	5	4	5	4	2	1	2	0
Ṽ ^ŋ	2	0	2	2	0	0	0	0

Table 6. Occurrences of the vowel models for each speaker (in %)

	SEFR1	SEFR2	SEFR3	SEFR4	FRS1	FRS2	FRS3	FRS4
V	54.84%	83.87%	70.97%	74.19%	93.55%	96.77%	90.32%	100%
V ^ŋ	22.58%	3.23%	6.45%	6.45%	0%	0%	3.23%	0%
Ṽ	16.13%	12.90%	16.13%	12.90%	6.45%	3.23%	6.45%	0%
Ṽ ^ŋ	6.45%	0%	6.45%	6.65%	0%	0%	0%	0%

Table 7. Occurrences of the vowel models for both groups (in %)

	SEFR	FRS
V	70.97%	95%
V ^ŋ	9.68%	0.81%
Ṽ	14.52%	4.03%
Ṽ ^ŋ	4.84%	0%

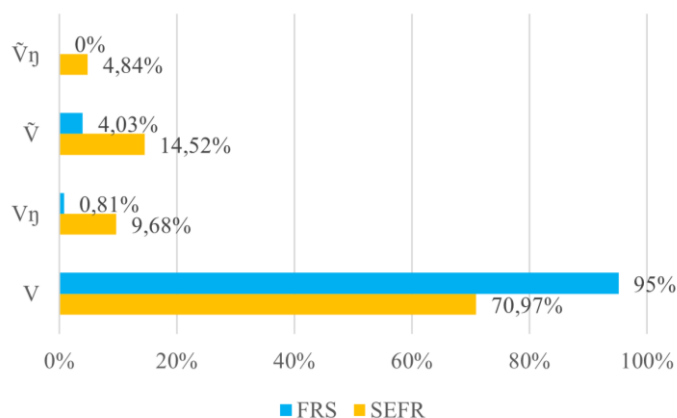


Figure 3. Occurrences of the vowel models for both groups (in %)

The speakers' occurrences were counted and listed in table 5. From this data, the proportion of those occurrences was calculated in percentage in table 6. Finally, in table 7, the speakers were gathered together in their own group, SEFR or FRS, in order to display the general pronunciation tendency of each group. From this table was generated the clustered bar chart in fig. 3, that gives a better perspective of the results²⁶.

First, the three tables reveal that the English model [V] is mainly respected by the two groups – it is especially visible in fig. 3. In fact, the SEFR group produced 70.97% of oral vowels, when the FRS group produced 95% of those, that is close enough to 100% to state that the other occurrences, [V^ɲ, \tilde{V} , $\tilde{V}^{\text{ɲ}}$], are incidental, uncommon and scarce mistakes for French speakers with no particular regional accent. As a matter of fact, FRS4 even produced a 100% of oral vowels.

The second most common occurrence after [V], is the nasal vowel model [\tilde{V}], with 14.52% of it for the SEFR group and only 4.03% for the FRS speakers. Even though this mispronunciation is not recurrent, its presence in both groups may show that it is rather a typical French mistake than a South-eastern singularity.

Finally, these results confirm that the velar nasal appendix [ɲ] corresponds to a typical South-eastern feature. Indeed, only one occurrence of [ɲ] was found among the FRS speakers – that is FRS3, whose Corsican origins may explain this occurrence, – otherwise, no FRS speaker pronounced any vowel (oral or nasal) with the appendix. Regarding the SEFR group, on the other hand, 9.68% of the vowels corresponded to the [V^ɲ] model, and 4.84% to the [$\tilde{V}^{\text{ɲ}}$] one. We can assume that those models, and in particular the latter, truly represent conservative South-eastern vowel pronunciations that the speakers tend to correct. In fact, though it is still present in their speeches, it does not represent the greatest part of the vowel production. The speaker who used the appendix the most was SEFR1, and as a matter of fact, she seems to be the one who used it the most frequently in French as well (see table 3 in §2.2.3).

During the experiment, all the four French nasal vowels / \tilde{a} , \tilde{o} , \tilde{e} , $\tilde{\text{œ}}$ / appeared at some point (see table 4 in §3.1). However, it is interesting to highlight that out of six [$\tilde{V}^{\text{ɲ}}$] occurrences tallied only one was [$\tilde{\text{œ}}^{\text{ɲ}}$] and five of them were [$\tilde{o}^{\text{ɲ}}$], there were no [$\tilde{a}^{\text{ɲ}}$] or [$\tilde{e}^{\text{ɲ}}$]. The reason for it remains unknown, and further reaserches will be needed to answer this question.

²⁶ All the tables and the charts presented have been generated via Excel.

3.2.2. Consonants

As a reminder, the hypotheses established on the <-ng> consonants production were that:

- The production of /ŋ/ should represent a greater difficulty for standard French speakers than for South-eastern ones.
- The voiced velar occlusive /g/, and eventually /ə/, may be more recurrent in South-eastern speakers' speeches than in those of standard French speakers.
- The different written forms <Vn>, <Vn'>, and <Vng> may influence the speakers' pronunciation, as well as the context to the right of the <Vng> segment: vowel, consonant or nothing.

PRODUCTION OF THE VELAR NASAL

Even though no speaker was constant in their pronunciation of the <-ng> segment, they were all able to produce the velar nasal /ŋ/ phoneme, whether it was with extra sounds (/g, gə/) or not. Hence, our results go against Herry-Bénit's (2011) observations according to which French learners tend to pronounce <-ng> /ŋ/. However, our conclusions only result from an auditive analysis and an acoustic one could reveal other results, in particular on the phonetic subtleties – as here the nature of the nasal consonant, and in §3.2.1, the nature of the nasal appendix. Therefore, another more advanced research will be needed to confirm those results. On the other hand, we can state that the French regional accent played no part in the production of /ŋ/. In fact, the existence of the velar nasal appendix in the South-eastern French phonetic system has no influence on the production of the English /ŋ/: it is only relevant in the vocalic production (see §3.2.1).

PRONUNCIATION OF <-ng>

There are twenty-eight <Vng, Vn'> occurrences in the corpus. As already said, the standard English pronunciation of <-ng> is /ŋ/ (see §1.2.1), however, the presence of <-g> may invite French speakers to pronounce it frankly, /g/, or slightly, /(g)/. Concerning the South-eastern speakers, they may not only pronounce /g/ but add /ə/ to it: either marked, /ə/, or light /(ə)/. On the other hand, <-n'> is supposed to be pronounced /n/ but it is not impossible that the speakers should pronounce it indifferently than <-ng> – but we will explore this particular case in the next paragraph. As a result, based on the outcomes collected in table 4 (see §3.1), the speakers' possible pronunciations for <-ng, -n'> are: /n, ŋ, ŋg, ŋ(g), ŋ(gə), ŋg(ə), ŋgə/ and a speaker did not pronounce it at all (we will note it “/”).

Table 8. Occurrences of the consonants pronunciation in the <Vng> and <Vn' > segments

	SEFR1	SEFR2	SEFR3	SEFR4	FRS1	FRS2	FRS3	FRS4
n	2	1	0	0	0	0	4	0
ŋ	3	9	5	6	7	10	6	9
ŋg	7	12	11	4	13	5	13	12
ŋ(g)	2	4	10	7	6	13	5	7
ŋ(gə)	2	0	0	6	0	0	0	0
ŋg(ə)	6	2	1	3	2	0	0	0
ŋgə	6	0	1	1	0	0	0	0
/	0	0	0	1	0	0	0	0

Table 9. Consonant occurrences for each speaker (in %)

	SEFR1	SEFR2	SEFR3	SEFR4	FRS1	FRS2	FRS3	FRS4
n	7.1%	3.6%	0%	0%	0%	0%	14.3%	0%
ŋ	10.7%	32.1%	17.9%	21.4%	25%	35.7%	21.4%	32.1%
ŋg	25%	42.9%	39.3%	14.3%	46.4%	17.9%	46.4%	42.9%
ŋ(g)	7.1%	14.3%	35.7%	25%	21.4%	46.4%	17.9%	25%
ŋ(gə)	7.1%	0%	0%	21.4%	0%	0%	0%	0%
ŋg(ə)	21.4%	7.1%	3.6%	10.7%	7.1%	0%	0%	0%
ŋgə	21.4%	0%	3.6%	3.6%	0%	0%	0%	0%
/	0%	0%	0%	3.6%	0%	0%	0%	0%

Table 10. Consonant occurrences for both groups (in %)

	SEFR	FRS
n	2.7%	3.6%
ŋ	20.5%	28.6%
ŋg	30.4%	38.4%
ŋ(g)	20.5%	27.7%
ŋ(gə)	7.1%	0%
ŋg(ə)	10.7%	1.8%
ŋgə	7.1%	0%
/	0.9%	0%

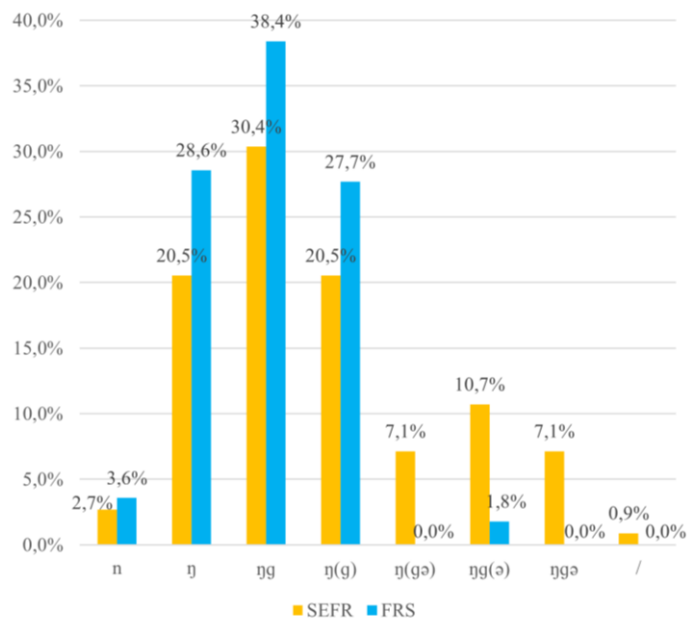


Figure 4. Consonant occurrences for both groups (in %)

The same method was used as in §3.2.1. The speakers' occurrences were counted and listed in table 8. From this data, the proportion of those occurrences was calculated in percentage in table 9. Finally, in table 10, the speakers were gathered together in their own group, SEFR or FRS, in order to display the general pronunciation tendency of each group. From this table was generated the clustered column chart in fig. 4, that gives a better perspective of the results.

First, it reveals that the correct English pronunciation /ŋ/ is the second most recurrent occurrence: 20.5% for the SEFR group and 28.6% for the FRS group. However, the most common occurrence for both groups is /ŋg/: 30.4% for the SEFR group and 38.4% for the FRS group. This confirms that the French reflex to pronounce the written <-g> is effective and is so for both groups, indifferently. The behaviour of the speakers towards the /g/ was gathered in the following table (tab. 11) and chart (fig. 5):

Table 11. *Speakers' behaviour towards the /g/ (in %)*

	SEFR	FRS
Marked /g/: /ŋg, ŋg(ə), ŋgə/	48.2%	40.2%
Light /g/: /ŋ(g), ŋ(gə)/	27.7%	27.7%
Absent /g/: /n, ŋ/, /	24.1%	32.1%

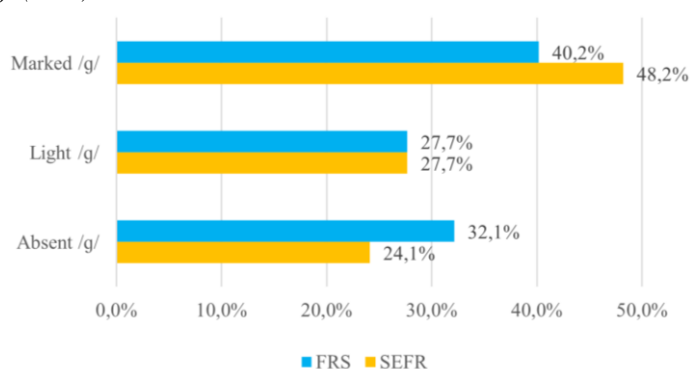


Figure 5. *Speakers' behaviour towards the /g/ (in %)*

As we can see, the written <-g> is mainly pronounced by both groups (SEFR: 75.9%, FRS: 67.9%), and it is more often marked (/g/) than light (/g/) for both groups. It reveals that the presence of the velar plosive /g/ in the speakers' speech does not depend on their regional accent but on their French origin. However, another feature appears to be more significant regarding the regional origin of the French speaker: the presence of final schwas. As for /g/, the behaviour of the speakers towards /ə/ was gathered in the following table (table 12) and chart (fig. 6):

Table 12. Speakers' behaviour towards /ə/ (in %)

	SEFR	FRS
Marked /ə/: /ŋgə/	7.1%	0%
Light /ə/: /ŋ(gə), ŋg(ə)/	17.9%	1.8%
Absent /ə/: /n, ŋ, ŋg, ŋ(g)/, /	75%	98.2%

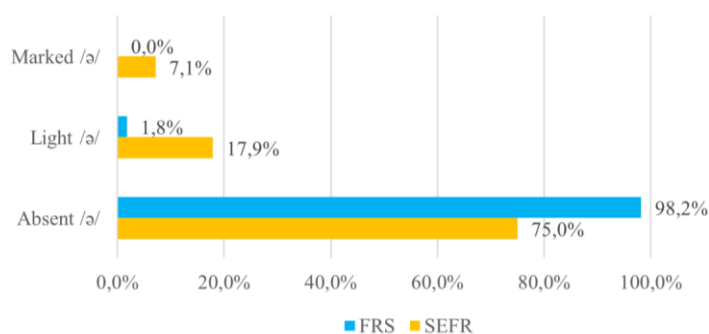


Figure 6. Speakers' behaviour towards the /ə/ (in %)

The results indicate that /ə/ is still mainly absent in the speakers' speech. For the FRS group, a possible pronunciation of schwa remains incidental (1.8%): only one speaker (FRS1) pronounced a light schwa twice, though it seemed to be rather due to a hesitation, otherwise, no other FRS speaker produced it. On the contrary, SEFR speakers seem more inclined to pronounce it as it is already more present in their natural French speech (see §1.1.2). In fact, /ə/ was present in one fourth of the occurrences of the SEFR group (25%: 17.9% of light schwa occurrences, and 7.1% of marked ones). Though it does not represent the majority of the occurrences, it is significant enough for us to state that the original regional accent of a speaker persists when they speak a foreign language.

However, it is important to underline that the strongest form of marked pronunciation, /ŋgə/, was one of the rarest occurrences, even among the SEFR group (7.1%). As a matter of fact, only one speaker (SEFR1) used it regularly (21.4% of the time) being even her most recurrent occurrence, when two others (SEFR3 and SEFR4) pronounced it only once. In fact, the persistence of final schwa in SEFR1's English speech may be explained by her English level being lower than the others. Otherwise, those results reveal a tendency for a disappearance of schwa among the other SEFR speakers: most of the time, when it is present, it is pronounced in its light form (17.9% against 7.1% of marked schwas).

INFLUENCE OF THE WRITTEN FORMS: <Vng> AND <Vn'>

In the corpus, we decided to play on the written forms <Vn'> and <Vng>. The aim was to test the role of the spelling on the learners' pronunciation, being a possible source of confusion. As seen earlier, French speakers are naturally inclined to pronounce a written final <-g>. Therefore, its disappearance in <Vn'> was supposed to erase the visual confusion and help the speakers to produce either /n/ (as it should be pronounced) or /ŋ/, but not /g/, which should be avoided. The corresponding occurrences were collected in the following table, based on table 4 (see §3.1):

Table 13. Auditive analysis: selection of the sentences displaying <Vn'>/<Vng> oppositions

	SEFR1	SEFR2	SEFR3	SEFR4	FRS1	FRS2	FRS3	FRS4
'pleɪŋ	ɪŋg(ə)	i ^h ŋg	i ^h ŋg	ɪŋg	ɪŋg	ɪŋ(g)	ɪŋg	ɪŋ(g)
'lʌvɪn	ɪn	ɪn	ɪŋ(g)	ɪŋ(g)	ɪŋ	ɪŋ	ɪn	ɪŋ
'lʌvɪŋ	ɪŋ(g)	ɪŋg	ɪŋg	ɪŋ	ɪŋg	ɪŋ(g)	ɪn	ɪŋ
'fi:lɪŋ	ɪŋg	ɪŋg	ɪŋg	ɪŋg	ɪŋ(g)	ɪŋ(g)	ɪŋg	ɪŋ(g)
'sprɛdɪn	ɪn	ɪŋ(g)	ɪŋ(g)	ɪŋ(g)	ɪŋ(g)	ɪŋ	ɪŋ(g)	ɪŋg
ə'mʌŋ	ɔŋg	ɔŋg	ɔ ^h ŋg	ʌŋ	ɔŋ	ɔŋg	ɔ ^h ŋg	ɔŋg
'wɔtʃɪn	ɪŋ	ɪŋ(g)	ɪŋ(g)	ɪŋ(gə)	ɪŋ	ɪŋ	ɪŋ	ɪŋ
'rɔʊlɪn	ɪŋ	ɪŋ	ɪŋ	ɪŋ	ɪŋg	ɪŋ	ɪn	ɪŋ

The first line in table 13 corresponds to the fifth sentence of the corpus: *The DJ's playing "I Was Made For Lovin' You" and I'm loving it!* This sentence was the only one where a word was present both in its full form (*loving*) and in its shortened form (*lovin'*). The first <Vng> occurrence was *playing*, and the eight speakers pronounced the written <-g> (/g/ or /(g)/). The next occurrence was *lovin'* and only two speakers pronounced a light /(g)/, otherwise, three of them respected the written form <-n'> and produced /n/, and the other three pronounced /ŋ/. Focusing on the last occurrence, *loving*, if most speakers kept pronouncing /g/ or /(g)/ (five of them), FRS3 reproduced a /n/ and thus pronounced *lovin'* and *loving* indifferently. FRS4 also pronounced them the same way but with /ŋ/. However, the most surprising case is that of SEFR4 who pronounced *lovin'* with a final /(g)/ but *loving* with a /ŋ/: she was manifestly confused by the written form changes.

The second line of table 13 corresponds to the seventh sentence of the corpus: *A feeling of fear was spreadin' among us: we sat on the beach, watchin' the rollin' waves.* The first occurrence, *feeling*, was also only pronounced with a final /g/ (or /(g)/). The pronunciation of the second occurrence, *spreadin'*, seemed to follow a certain pattern: each speaker who pronounced a /g/ for *feeling* produced a /(g)/ for *spreadin'* (only SEFR1 produced a /n/ as she did in the previous sentence), and, in the same way, FRS2 produced a /ŋ/ after a /ŋ(g)/. Only FRS4 produced a marked /g/ despite the written form <-n'>. The third <Vng> occurrence, *among*, like the first one, was mainly pronounced with a final /g/. However, this sound tended to disappear again in the two next occurrences: *watchin'* was mostly pronounced with a final /ŋ/, though three SEFR speakers pronounced a final /(g)/, and *rollin'* was also mainly pronounced with a final /ŋ/, except for FRS1 who produced a marked /g/, and FRS3 who respected the written form by pronouncing /n/.

Therefore, we can say that the written forms <Vng> and <Vn'> certainly play a part in the speakers' pronunciation, and often in a helping way. However, we cannot assume this radically. In fact, this study reveals interesting results, but a more advanced study is needed to confirm them. On the other hand, those results apply to all French speakers indifferently, the regional accent seems to have no impact.

INFLUENCE OF THE WRITTEN FORMS: MINIMAL PAIRS /ŋ/ AND /n/

Following the same idea as previously, minimal pairs /ŋ/ and /n/ were included in the corpus to test the confusion or help it may produce. The corresponding occurrences were collected in the following table, based on table 4 (see §3.1):

Table 14. Auditive analysis: selection of the sentences displaying CV/n/ - CV/ŋ/ minimal pairs

	SEFR1	SEFR2	SEFR3	SEFR4	FRS1	FRS2	FRS3	FRS4
'ræn	ʌn	ãn	an	ʌn	ən	æɪn	an	ʌn
'ræŋ	ãg	ãŋg(ə)	ãŋ(g)	ãŋ(gə)	ãŋ(g)	ãŋ(g)	æŋg	eŋg
'sɪn	ɪn	ɪn	ɪŋ	ɪn	ɪn	ɪn	ɪn	ɪŋ
'sɪŋ	ɪŋg(ə)	ɪŋg	ɪŋ(g)	ɪŋg(ə)	ɪŋg	ɪŋ(g)	ɪŋg	ɪŋg
'dæn	æɪn	an	an	an	an	an	an	an
'dæŋ	ẽŋg	ẽŋg	ẽŋ(g)	æŋ(k)	æŋ(g)	ɑ:ŋg	ʌŋg	eŋg

As a matter of fact, the presence of the minimal pairs /ŋ/ and /n/ seems to have strongly influenced the speakers' pronunciation. In fact, in table 14, every <CVng> occurrence was pronounced with a final /g/ (marked or light), and every <CVn> occurrence was pronounced CV/n/. The only exceptions were SEFR3 and FRS4 who pronounced *sin* /sɪŋ/ as they might have been confused by the close presence of *song* in the sentence (*It's not a sin to sing a song...*). Therefore, those results reveal a common reflex of French speakers to distinguish <CVn> from <CVng> by using /g/. In fact, as /ŋ/ is not a distinctive phonological feature in French, it has not been assimilated by French learners as a distinctive feature in English either. Finally, the only difference between the FRS and SEFR groups is that in the latter speakers tend to emphasise this distinction with an additional final light /ə/ (four occurrences). Once again, this aspect should be explored in a more specific study.

INFLUENCE OF BORROWED ENGLISH WORDS

Some borrowed English words present in French were included to the corpus to potentially trigger typical French reflexes. The words chosen were *bowling* (twice), *parking*, *shopping*, and *Hong Kong*. The corresponding occurrences were collected in the following table, based on table 4 (see §3.1):

Table 15. *Auditive analysis: selection of the sentences where English words present in French are included*

	SEFR1	SEFR2	SEFR3	SEFR4	FRS1	FRS2	FRS3	FRS4
'bəʊliŋ	i ^h ŋg(ə)	iŋ	i ^h ŋgə	iŋ	iŋ(g)	iŋ	iŋ(g)	iŋ
'bəʊliŋ	i ^h ŋg(ə)	iŋg	iŋg(ə)	iŋ(g)	iŋg	iŋ	iŋ(g)	iŋ(g)
'pɑ:kɪŋ	iŋg(ə)	iŋ	iŋ	iŋ(gə)	iŋg	iŋ	iŋg	iŋg
'ʃɔpiŋ	iŋg	iŋ(g)	iŋg	iŋg(ə)	iŋg	iŋ	iŋ(g)	iŋg
'hɔŋ k-	ɔŋ k	ɔŋ k	ʔŋ k	ɔ ^h k	ɔŋ k	ɔŋ k	ɔn#k	ɔŋ k
'kɔŋ	ʔŋgə	ɔŋ(g)	ʔ ^h ŋg	ʔ ^h ŋ(gə)	ɔŋg	ɔŋg	ɔŋg	ɔŋ(g)

As we can see in table 15, the speakers mainly pronounced final /g/ (marked or light) as they would have done in French. However, from time to time, some of them managed to pronounce those English words correctly (final /ŋ/) – FRS2 even produced almost only /ŋ/ sounds. On the contrary, SEFR1 and SEFR4 mostly pronounced /gə/ (marked or light), and all the others mainly produced /g/, though none of them displayed a constant pattern. The overuse of /g/ here may be due to the presence of those words in the French vocabulary. However, it is hazardous to assert this undoubtedly for this behaviour was also visible on other words of the corpus. Therefore, borrowed English words were not treated differently from others and did not necessarily add an extra difficulty for French speakers.

Nevertheless, *Hong Kong* represented a very special case. In fact, *Kong* was only pronounced with /g/ (marked, light, and/or with schwa). The speakers were certainly disturbed by the written form and the intrinsic phonological complexity of the two associated words (with the accumulation of velar plosives) that are not even English words, originally, but Asian words. The pronunciation of *Hong* will be discussed in the next paragraph.

INFLUENCE OF THE CONTEXT TO THE RIGHT

That last criterion aimed at verifying if the context to the right of <Vng, Vn’> favoured a mispronunciation, or, on the contrary, if it helped preventing it. Therefore, the corpus had to test different contexts to the right: consonants, vowels, and pauses. The first case studied will be that of the pause. The corresponding occurrences were collected in the following table, based on table 4 (see §3.1):

Table 16. *Auditive analysis: <Vng#> occurrences*

	SEFR1	SEFR2	SEFR3	SEFR4	FRS1	FRS2	FRS3	FRS4
'bəʊliŋ #	i ^h ŋg(ə)	ŋg	ŋg(ə)	ŋ(g)	ŋg	ŋ	ŋ(g)	ŋ(g)
'dʌŋ #	æ ^h ŋ	ʌŋg(ə)	æŋg	æŋg	æŋg	ʌŋg	æŋg	ʌŋg
'swiŋŋ #	imi ^h ŋgə	ŋgŋg	ŋgŋ(g)	ŋgŋ(g)	ŋgŋg	ŋ ^g ŋ(g)	ŋ ^g ŋg	ŋŋŋ(g)

As retrieved in table 16, every <Vng> in final position of a sentence was pronounced with a final /g/ sound, and sometimes with an extra /ə/ for SEFR speakers (only one occurrence of final /ŋ/ for FRS2). Therefore, when it is in final position in a sentence, the final <-g> of a <Vng> word will be systematically pronounced by a French speaker. This may be due to the speakers releasing their attention at the end of a sentence, therefore insisting on the last sound to mark the end of the sentence. There may be a prosodic explanation to that, and it would be interesting to study it in a more specific research work.

Regarding following vowels and consonants, those two cases do not differ significantly and seem to have no influence on the pronunciation of the previous <Vng> segment (see table 4, §3.1), except for the plosive and affricate consonants. The corresponding occurrences were collected in the following table, based on table 4 (see §3.1):

Table 17. *Auditive analysis: <Vng + C> (plosives and affricates) occurrences*

	SEFR1	SEFR2	SEFR3	SEFR4	FRS1	FRS2	FRS3	FRS4
'reɪŋ b-	ŋgə	ŋ	ŋ	i ^h ŋ(gə)	ŋ	ŋ(g)	ŋ	ŋ
'sɪŋŋ d-	i ^h ŋgə	ŋ	ŋ(g)	ŋ	ŋ	ŋ(g)	ŋ	ŋ
'dɑːnsɪŋ dʒ-	i ^h ŋgə	ŋ	ŋ(g)	ŋ	ŋ	ŋ(g)	ŋ	ŋ
'hɒŋ k-	ɔŋ	ɒŋ	ɔ̃ŋ	ɒ ^h	ɒŋ	ɒŋ	ɒn	ɒŋ

We will set apart two exceptions from table 17. First, SEFR1 who produced only V/ŋgə/, insisting on a vocalic separation of two consecutive consonants in connected speech, and displaying a typical South-eastern feature (see §1.1.2). Second, the total absence of /g/ sounds in the pronunciation of /'hɒŋ k-/ (*Hong Kong*), that is only explained by the nature of the following consonant, /k/, which is already a velar plosive, /g/'s voiceless counterpart. Otherwise, even though the speakers still produced /g/ sounds, these occurrences were all light and in minority: six V/(g)/ (29%) against fifteen V/ŋ/ (71%). Therefore, we can state that the presence of plosives (/b/ and /d/ in the table) and affricates (/dʒ/ in the table) after a <Vng> segment in connected speech have an influence on the speakers' pronunciation. Moreover, regarding the principle of least effort (Zipf, 1949, as cited in Kul, 2007, p. 11), pronouncing /ŋ/ + C seems more coherent than /ŋg/ + C, even for French speakers. Once again, a more specific study could be done to explore this aspect and its potential as a pedagogical tool for French learners.

Conclusion

The experiment confirmed most of our hypotheses, but not all of them. First, regarding vowel quality, the speakers mainly produced oral vowels, as it should be in English. However, some speakers, FRS and SEFR speakers indifferently, produced nasal vowels from time to time. Therefore, we can acknowledge this mistake as typically French, contrary to the velar nasal appendix that is indeed a typical South-eastern feature reproduced by SEFR speakers in their pronunciation of English. Secondly, the production of /ŋ/ represented no particular difficulty, neither for FRS nor SEFR speakers. In fact, the South-eastern nasal appendix only plays a role on the vowel but has no impact on the consonant, contrary to what we initially thought. Nevertheless, even if the speakers had no problem pronouncing /ŋ/ – statement that should be confirmed by an acoustic analysis –, they globally had more trouble not adding a /g/ sound to it, whether it was light or marked. Once again, this mispronunciation is rather a French drawback, contrary to the addition of /ə/, that was nearly only performed by SEFR speakers. Finally, the different written forms <Vn>, <Vn'>, and <Vng> definitely influenced the speakers' pronunciation, though differently: the presence of <Vn'> often helped the speakers to erase /g/ final sounds in following <Vng> occurrences, but on the contrary, the presence of /n/ and /ŋ/ minimal pairs systematically triggered the pronunciation of written <-g>. The context to the right of the <Vng> segment also played a part in the pronunciation of the segment, but only in two cases. First, when it was in final position in the sentence: the final <-g> was systematically pronounced. Second, when it was followed by a plosive or an affricate consonant which favoured the correct pronunciation of <Vng>, with a final /ŋ/ only (though it was not systematic). However, FRS and SEFR speakers displayed the same behaviour towards those different written forms that we tested, and did not distinguish one from another, except in a few cases when SEFR speakers insisted on the mispronunciation with extra /ə/.

Therefore, this experiment proved that the regional accent of French speakers can indeed affect their pronunciation of English, at least for what concerns V/ŋ/ sounds. Nevertheless, when the speakers have already reached a certain level in the foreign language, the regional accent is not omnipresent and does not damage the discourse to the point that it becomes unintelligible. Therefore, the identified drawbacks of South-eastern speakers are the velar nasal appendix added on vowels and schwas added at the end of the consonant segment, and they only represent light features that can be easily corrected.

The study of English as a second language for French learners is already a prolific research domain in phonetics and phonology, as well as the study of regional varieties. However, the combination of the two is still rather unexplored. In fact, this study proposes to go further and explore in detail the speakers' difficulties that not only come from the French phonological system, but also those that a regional accent can cause. In that way, this study is encouraging for future research works as it opens several perspectives to be explored more deeply, with more precise analyses – inevitably acoustic ones –, such as the study of the influence of the written forms on French learners' pronunciation and the pedagogical potential of such tools that teachers could use. Indeed, the ultimate objective of such a study is eventually to find a way towards an adapted pedagogical approach, in the hope of facilitating the learner's English pronunciation, learners of any regional origin. This pedagogical aspect could be the central one of a future advanced research. However, whatever are the future prospects, it is evident that this experiment, with its limits and weaknesses, was only an introduction to a concrete future research work.

Appendices

Appendix 1. Contrasts in Vowels Established by Commutation

/i:/	heed	feel	bead	pea	
/ɪ/	hid	fill	bid		except
/e/	head	fell	bed		
/æ/	had		bad		
/ɑ:/	hard		bard	par	
/ɒ/	hod		bod		
/ɔ:/	hoard	fall	board	paw	
/ʊ/	hood	full			
/u:/	who'd	fool	booed	pooh	
/ʌ/			bud		
/ɜ:/	heard	furl	bird	purr	
/ə/					accept
/eɪ/		fail	bayed	pay	
/aɪ/	hide	file	Bide	pie	
/ɔɪ/		foil	buoyed		
/əʊ/	hoed	foal	bode	po	
/aʊ/	how'd	foul	bowed	pow	
/ɪə/			beard	peer	
/eə/	haired		bared	pair	
/ʊə/				poor	

Table 18. *Contrasts in vowels established by commutation, adapted from Gimson & Cruttenden (2008, p. 91)*

Appendix 2. Information Sheets

SEFR1

Fiche d'information / Information sheet

Date de l'enregistrement / Date of recording : 7 novembre 2020

Lieu et conditions de l'enregistrement / Place and setting of the recording :

À Aubagne, dans une chambre silencieuse

Prénom / First name : [REDACTED]

Nom / Name : [REDACTED]

Nationalité / nationality : française

Age au moment de l'enregistrement / Age at date of recording : 21 ans

Lieu de naissance / Place of birth : Aubagne

Lieu de résidence au moment de l'enregistrement / Current place of residence :

Aubagne

Lieux de résidence antérieurs / Previous places of residence :

Lieu / place nombre d'années / number of years age (de_ à) / age (from_ to_)

Cabriès 7 ans de 9 à 16 ans

Cuges les Vins 1 an de 17 à 18 ans

Activité / Occupation : Sabriée

Education (specifier jusqu'à quel âge et quel type d'éducation) / Education (specify until what age and what type of education) :

BAC STTG jusqu'à mes 20 ans

Langues parlées / Languages spoken :

Langue / language	niveau / level of proficiency	(basique)	(intermédiaire)	(fluide)
français		<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Anglais		<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Espagnol		<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Langue / language	fréquence / frequency of use	(rarement)	(mensuellement)	(quotidiennement)
..Français.....	o	o	<input checked="" type="checkbox"/>	
..Anglais.....	<input checked="" type="checkbox"/>	o	o	
..Espagnol.....	<input checked="" type="checkbox"/>	o	o	
.....	o	o	o	

Père de l'informant / Informant's father :

Lieu d'origine / Place of origin : ..Marseille.....
 Accent français parlé / Variety of French spoken : ..faible accent du sud
 Langues ou dialect local parlé / Languages or local dialect spoken :
 ..Pas d'autre langue.....

Mère de l'informant / informant's mother :

Lieu d'origine / Place of origin : ..Strasbourg.....
 Accent français parlé / Variety of French spoken : ..Accent assez marqué du sud
 Langues ou dialect local parlé / Languages or local dialect spoken :
 ..Espagnol.....

Pas de Conjoint de l'informant / Informant's partner :

Lieu d'origine / Place of origin : .. /
 Accent français parlé / Variety of French spoken : .. /
 Langues ou dialect local parlé / Languages or local dialect spoken : .. /
 .. /

Personnes ayant joué un rôle important pour l'informant lors de l'acquisition de la langue /
 People who played an important role during the informant's acquisition of the language :

..Une amie faisant des études d'anglais.....

Endroit où l'informant réside (maison, appartement, quartier résidentiel, banlieue, etc...) / Type
 of accommodation of the informant (house, flat, in a residential area, housing estate, block of
 flats, etc.): ..Appartement en centre-ville.....

Fiche d'information / Information sheet

Date de l'enregistrement / Date of recording : ... 17/10/20

Lieu et conditions de l'enregistrement / Place and setting of the recording :

... Chez moi, dans mon appartement, avec mon téléphone

Prénom / First name : ... C. [REDACTED]

Nom / Name : ... D. [REDACTED]

Nationalité / nationality : ... Française

Age au moment de l'enregistrement / Age at date of recording : ... 23 ans

Lieu de naissance / Place of birth : ... Marseille

Lieu de résidence au moment de l'enregistrement / Current place of residence :

... Marseille

Lieux de résidence antérieurs / Previous places of residence :

Lieu / place nombre d'années / number of years age (de _ à _) / age (from _ to _)

Carnoux-en-Provence 17 ans de 0 à 17 ans

Lascours 7 ans de 17 à 22 ans

Marseille 1 an de 22 à 23 ans

Activité / Occupation: ... Chasseur de tête

Education (specifier jusqu'à quel âge et quel type d'éducation) / Education (specify until what

age and what type of education) : ... Diplôme d'Ingénieur et diplôme en Management

... Général obtenus à 22 ans

Langues parlées / Languages spoken :

Langue / language niveau / level of proficiency (basique) (intermédiaire) (fluide)

..... Français Anglais Espagnol Provençal

Langue / language	fréquence / frequency of use	(rarement)	(mensuellement)	(quotidiennement)
Français	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	
Anglais	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	
Espagnol	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Provençal	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	

Père de l'informant / Informant's father :

Lieu d'origine / Place of origin : Marseille
 Accent français parlé / Variety of French spoken : Marseillais et un peu pied-noir
 Langues ou dialect local parlé / Languages or local dialect spoken :
Anglais (intermédiaire)

Mère de l'informant / Informant's mother :

Lieu d'origine / Place of origin : Marseille
 Accent français parlé / Variety of French spoken : Marseillais
 Langues ou dialect local parlé / Languages or local dialect spoken : Anglais
(intermédiaire), Provençal (fluide)

Conjoint de l'informant / Informant's partner :

Lieu d'origine / Place of origin : Marseille
 Accent français parlé / Variety of French spoken : Marseillais
 Langues ou dialect local parlé / Languages or local dialect spoken : Anglais (fluide),
Espagnol et Italien (basique)

Personnes ayant joué un rôle important pour l'informant lors de l'acquisition de la langue /

People who played an important role during the informant's acquisition of the language :

Anglais : personne en particulier, Espagnol : ma professeure au collège, Provençal : mon
grand-père.

Endroit où l'informant réside (maison, appartement, quartier résidentiel, banlieue, etc...) / Type

of accommodation of the informant (house, flat, in a residential area, housing estate, block of

flats, etc.) : appartement

Fiche d'information / Information sheet

Date de l'enregistrement / Date of recording : ... 17/10/20

Lieu et conditions de l'enregistrement / Place and setting of the recording :

.. à Aix-en-Provence, dans mon appartement, toute seule

Prénom / First name : ... I. [REDACTED]

Nom / Name : ... S. [REDACTED]

Nationalité / nationality : ... Française

Age au moment de l'enregistrement / Age at date of recording : ... 25 ans

Lieu de naissance / Place of birth : ... Marseille

Lieu de résidence au moment de l'enregistrement / Current place of residence :

.. Aix-en-Provence

Lieux de résidence antérieurs / Previous places of residence :

Lieu / place nombre d'années / number of years age (de_ à_) / age (from_ to_)

Pennes-Mirabeau 18 ans de 0 à 21 ans

Marseille 2 ans de 21 à 23 ans

Aix-en-Provence 2 ans de 23 à 25 ans

Activité / Occupation : ... diplômée d'un Master, sans emploi

Education (specifier jusqu'à quel âge et quel type d'éducation) / Education (specify until what age and what type of education) : ... Licence de SVT et Master de SVT terminé à 25ans.

Langues parlées / Languages spoken :

Langue / language niveau / level of proficiency (basique) (intermediaire) (fluide)

..... Français Anglais

Langue / language	fréquence / frequency of use	(rarement)	(mensuellement)	(quotidiennement)
..... Français	o	o	<input checked="" type="checkbox"/>	
..... Anglais	o	<input checked="" type="checkbox"/>	o	
.....	o	o	o	
.....	o	o	o	

Père de l'informant / Informant's father :

Lieu d'origine / Place of origin : ..Marseille.....
 Accent français parlé / Variety of French spoken : ..accent marseillais.....
 Langues ou dialect local parlé / Languages or local dialect spoken : ..Français.....

Mère de l'informant / Informant's mother :

Lieu d'origine / Place of origin : ..Marseille.....
 Accent français parlé / Variety of French spoken : ..pas d'accent.....
 Langues ou dialect local parlé / Languages or local dialect spoken : ..Français.....

Conjoint de l'informant / Informant's partner :

Lieu d'origine / Place of origin : ..Arles.....
 Accent français parlé / Variety of French spoken : ..fort accent.....
 Langues ou dialect local parlé / Languages or local dialect spoken : ..Français.....

Personnes ayant joué un rôle important pour l'informant lors de l'acquisition de la langue /

People who played an important role during the informant's acquisition of the language :

.. Petite, je passais beaucoup de temps avec ma grand-mère qui est née à Marseille et qui
 .. a un fort accent, ainsi que mon père qui a un fort accent également.....

Endroit où l'informant réside (maison, appartement, quartier résidentiel, banlieue, etc...)/ Type

of accommodation of the informant (house, flat, in a residential area, housing estate, block of

flats, etc.) : ..appartement.....

Fiche d'information / Information sheet

Date de l'enregistrement / Date of recording : le 11 novembre 2020

Lieu et conditions de l'enregistrement / Place and setting of the recording : dans une
pièce isolée

Prénom / First name : [REDACTED]

Nom / Name : [REDACTED]

Nationalité / nationality : Française

Age au moment de l'enregistrement / Age at date of recording : 35 ans

Lieu de naissance / Place of birth : Aubagne

Lieu de résidence au moment de l'enregistrement / Current place of residence :
Carnoux en Provence

Lieux de résidence antérieurs / Previous places of residence :

Lieu / place nombre d'années / number of years age (de _ à _) / age (from _ to _)
Cassis 28 années 0 à 28 ans

Activité / Occupation: Auxiliaire agricole

Education (spécifier jusqu'à quel âge et quel type d'éducation) / Education (specify until what
age and what type of education): Bac ES à 19 ans

Ecole d'infirmière jusqu'à 20 ans

Ecole d'auxiliaire en agriculture jusqu'à 21 ans

Langues parlées / Languages spoken :

Langue / language	niveau / level of proficiency	(basique)	(intermédiaire)	(fluide)
Français		<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Anglais		<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Espagnol		<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Langue / language	fréquence / frequency of use	(rarement)	(mensuellement)	(quotidiennement)
..Français.....		<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
..Anglais.....		<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
..Espagnol.....		<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
.....		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Père de l'informant / Informant's father :

Lieu d'origine / Place of origin : ..Espagne.....
 Accent français parlé / Variety of French spoken : .. / ..
 Langues ou dialect local parlé / Languages or local dialect spoken : ..espagnol..

Mère de l'informant / Informant's mother :

Lieu d'origine / Place of origin : ..Vogères.....
 Accent français parlé / Variety of French spoken : .. / ..
 Langues ou dialect local parlé / Languages or local dialect spoken : .. / ..

Conjoint de l'informant / Informant's partner :

Lieu d'origine / Place of origin : ..Angers.....
 Accent français parlé / Variety of French spoken : ..accent du sud.....
 Langues ou dialect local parlé / Languages or local dialect spoken : ..anglais.....

**Personnes ayant joué un rôle important pour l'informant lors de l'acquisition de la langue /
 People who played an important role during the informant's acquisition of the language :**

.....
 ..
 ..

**Endroit où l'informant réside (maison, appartement, quartier résidentiel, banlieue, etc...)/ Type
 of accommodation of the informant (house, flat, in a residential area, housing estate, block of
 flats, etc.) : ..maison.....**

Fiche d'information / Information sheet

Date de l'enregistrement / Date of recording : ... 17/10/20

Lieu et conditions de l'enregistrement / Place and setting of the recording :

... dans mon appartement, à MarseillePrénom / First name : ... C.Nom / Name : ... D.Nationalité / nationality : ... FrançaiseAge au moment de l'enregistrement / Age at date of recording : ... 24 ansLieu de naissance / Place of birth : ... Lyon

Lieu de résidence au moment de l'enregistrement / Current place of residence :

... Marseille

Lieux de résidence antérieurs / Previous places of residence :

Lieu / place nombre d'années / number of years age (de_ à_) / age (from_ to_)

Lyon 5 ans de 0 à 5 ansMarseille 1 an de 5 à 6 ansCarnoux-en-Provence 13 ans de 6 à 19 ansBlois 6 mois à 23 ansMarseille 5 ans de 19 à 24 ansActivité / Occupation: ... en recherche d'emploi en écologie

Education (specifier jusqu'à quel âge et quel type d'éducation) / Education (specify until what

age and what type of education) : ... Master en Ecologie (biodiversité, écologie, évolution)

.....

.....

.....

Langues parlées / Languages spoken :

Langue / language niveau / level of proficiency (basique) (intermédiaire) (fluide)

..... Français Anglais

Langue / language	fréquence / frequency of use	(rarement)	(mensuellement)	(quotidiennement)
..... Français	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	
..... Anglais	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	
.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	

Père de l'informant / Informant's father :

Lieu d'origine / Place of origin : ..Lyon.....
 Accent français parlé / Variety of French spoken : ..Pas d'accent particulier.....
 Langues ou dialect local parlé / Languages or local dialect spoken : ..Français, très...
 peu Anglais.....

Mère de l'informant / Informant's mother :

Lieu d'origine / Place of origin : ..Nîmes (Gard).....
 Accent français parlé / Variety of French spoken : ..Accent nîmois.....
 Langues ou dialect local parlé / Languages or local dialect spoken : ..Français.....
 un peu Anglais.....

Conjoint de l'informant / Informant's partner :

Lieu d'origine / Place of origin : ..Marseille.....
 Accent français parlé / Variety of French spoken : ..Pas d'accent.....
 Langues ou dialect local parlé / Languages or local dialect spoken : ..Français.....
 quasiment bilingue en Anglais.....

Personnes ayant joué un rôle important pour l'informant lors de l'acquisition de la langue /

People who played an important role during the informant's acquisition of the language :

..... Français : parents et sœurs, autre : personne.....

Endroit où l'informant réside (maison, appartement, quartier résidentiel, banlieue, etc...) / Type

of accommodation of the informant (house, flat, in a residential area, housing estate, block of

flats, etc.) : appartement.....

Fiche d'information / Information sheet

Date de l'enregistrement / Date of recording : 11/10/2020
 Lieu et conditions de l'enregistrement / Place and setting of the recording : Dans un appartement au calme - PARIS

Prénom / First name :
 Nom / Name :

Nationalité / nationality : Française
 Age au moment de l'enregistrement / Age at date of recording : 21 ans
 Lieu de naissance / Place of birth : LA CIOTAT (13)
 Lieu de résidence au moment de l'enregistrement / Current place of residence : PARIS

Lieux de résidence antérieurs / Previous places of residence :

Lieu / place nombre d'années / number of years age (de à) / age (from to)
 - SIGNES (83) - 10 ans - de 3 mois à 10 ans
 - LA CIOTAT (13) - 7 ans - de 10 ans à 17 ans
 - AIX-EN-PROVENCE (13) - 3 ans - de 17 ans à 20 ans
 - GLASGOW (UK) - 1 an - de 20 à 21 ans

Activité / Occupation : Étudiante / stagiaire

Education (specifier jusqu'à quel âge et quel type d'éducation) / Education (specify until what age and what type of education) :

- BAecalauréat Scientifique mention Européenne (Anglais) / jusqu'à 17 ans
 - L1 Arts Plastiques / jusqu'à 18 ans
 - Licence de Droit / jusqu'à 21 ans

Langues parlées / Languages spoken :

Langue / language	niveau / level of proficiency	(basique)	(intermédiaire)	(fluide)
Anglais		<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Espagnol		<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>

Langue / language	fréquence / frequency of use	(rarement)	(mensuellement)	(quotidiennement)
Anglais	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Espagnol	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Père de l'informant / Informant's father :

Lieu d'origine / Place of origin : ..Grenoble (38).....

Accent français parlé / Variety of French spoken : ...∅.....

Langues ou dialect local parlé / Languages or local dialect spoken : ..Anglais (Fluide).....

Mère de l'informant / Informant's mother :

Lieu d'origine / Place of origin : ..Grenoble (38).....

Accent français parlé / Variety of French spoken : ..Marseillais (peu prononcé).....

Langues ou dialect local parlé / Languages or local dialect spoken : ...∅.....

Conjoint de l'informant / Informant's partner : ∅

Lieu d'origine / Place of origin : ..~~.....~~.....

Accent français parlé / Variety of French spoken : ..~~.....~~.....

Langues ou dialect local parlé / Languages or local dialect spoken : ..~~.....~~.....

Personnes ayant joué un rôle important pour l'informant lors de l'acquisition de la langue /

People who played an important role during the informant's acquisition of the language : ..Père.....

Endroit où l'informant réside (maison, appartement, quartier résidentiel, banlieue, etc...) /

Type of accommodation of the informant (house, flat, in a residential area, housing estate,

block of flats, etc.) : ..Appartement en banlieue parisienne.....

Fiche d'information / Information sheet

Date de l'enregistrement / Date of recording : ... 17/10/20

Lieu et conditions de l'enregistrement / Place and setting of the recording :

... chez mes parents, dans ma chambre

Prénom / First name : ... J. [redacted]

Nom / Name : ... G. [redacted]

Nationalité / nationality : ... Française

Age au moment de l'enregistrement / Age at date of recording : ... 23 ans

Lieu de naissance / Place of birth : ... Porto-Vecchio (2A, Corse)

Lieu de résidence au moment de l'enregistrement / Current place of residence :

... Porto-Vecchio (2A, Corse)

Lieux de résidence antérieurs / Previous places of residence :

Lieu / place nombre d'années / number of years age (de _ à _) / age (from _ to _)

Porto-Vecchio 18 ans de 0 à 18 ans

Aix-en-Provence 1 an de 18 à 19 ans

Marseille 4 ans de 19 à 23 ans

Activité / Occupation : ... sans emploi, en recherche d'emploi

Education (specifier jusqu'à quel âge et quel type d'éducation) / Education (specify until what

age and what type of education) : ... récemment diplômée d'un Master 2 en Ecologie

... (biodiversité, écologie, évolution), jusqu'à mes 23 ans

Langues parlées / Languages spoken :

Langue / language niveau / level of proficiency (basique) (intermédiaire) (fluide)

..... Français Italien Anglais

Langue / language	fréquence / frequency of use	(rarement)	(mensuellement)	(quotidiennement)
..... Français	o	o	<input checked="" type="checkbox"/>	
..... Italien	o	<input checked="" type="checkbox"/>		o
..... Anglais	o	<input checked="" type="checkbox"/>		o
.....	o	o		o

Père de l'informant / Informant's father :

Lieu d'origine / Place of origin : *Abidjan (Afrique), Nice, Marseille et Corse (2 Dans)*

Accent français parlé / Variety of French spoken : *aucun*

Langues ou dialect local parlé / Languages or local dialect spoken : *aucun*

.....

Mère de l'informant / Informant's mother :

Lieu d'origine / Place of origin : *Porto-Vecchio (Corse)*

Accent français parlé / Variety of French spoken : *aucun*

Langues ou dialect local parlé / Languages or local dialect spoken : *Italien*

(avec ses parents, frères et sœurs), Corse et Sarde

.....

Conjoint de l'informant / Informant's partner :

Lieu d'origine / Place of origin : *Valence (26, Drôme)*

Accent français parlé / Variety of French spoken : *aucun*

Langues ou dialect local parlé / Languages or local dialect spoken : *aucun*

.....

Personnes ayant joué un rôle important pour l'informant lors de l'acquisition de la langue /

People who played an important role during the informant's acquisition of the language :

personne mis à part mes parents, mon grand-père dans l'apprentissage de l'Italien

.....

.....

Endroit où l'informant réside (maison, appartement, quartier résidentiel, banlieue, etc...) / Type

of accommodation of the informant (house, flat, in a residential area, housing estate, block of

flats, etc.) : *maison dans un lotissement*

Fiche d'information / Information sheet

Date de l'enregistrement / Date of recording : ... 16/10/20

Lieu et conditions de l'enregistrement / Place and setting of the recording :
... Dans une pièce silencieuse à Aix-en-Provence

Prénom / First name : ... F

Nom / Name : ... B

Nationalité / nationality : ... Française

Age au moment de l'enregistrement / Age at date of recording : ... 22 ans

Lieu de naissance / Place of birth : ... Tourcoing

Lieu de résidence au moment de l'enregistrement / Current place of residence :
... Aix-en-Provence

Lieux de résidence antérieurs / Previous places of residence :

Lieu / place	nombre d'années / number of years	age (de_ à_) / age (from_ to_)
Fretin	8 ans	de 0 à 8 ans
Montpellier	13 ans	de 8 à 21 ans
Aix-en-Provence	1 an	de 21 à 22 ans

Activité / Occupation : ... Etudiante

Education (specifier jusqu'à quel âge et quel type d'éducation) / Education (specify until what age and what type of education) : ... BAC ES général, Licence en Droit public à Montpellier, ...
... Master 1 Droit international et européen en cours à Aix-en-Provence

Langues parlées / Languages spoken :

Langue / language	niveau / level of proficiency	(basique)	(intermediaire)	(fluide)
Français		<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Anglais		<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Espagnol		<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Langue / language	fréquence / frequency of use	(rarement)	(mensuellement)	(quotidiennement)
..... Français		<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
..... Anglais		<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
..... Espagnol		<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
.....		<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Père de l'informant / Informant's father :

Lieu d'origine / Place of origin : Valenciennes

Accent français parlé / Variety of French spoken : Pas d'accent

Langues ou dialect local parlé / Languages or local dialect spoken : /

.....

Mère de l'informant / Informant's mother :

Lieu d'origine / Place of origin : Tourcoing

Accent français parlé / Variety of French spoken : Pas d'accent

Langues ou dialect local parlé / Languages or local dialect spoken : /

.....

Conjoint de l'informant / Informant's partner : /

Lieu d'origine / Place of origin :

Accent français parlé / Variety of French spoken :

Langues ou dialect local parlé / Languages or local dialect spoken :

.....

Personnes ayant joué un rôle important pour l'informant lors de l'acquisition de la langue /

People who played an important role during the informant's acquisition of the language :

..... Mes parents, mon environnement familial, scolaire et amical

.....

.....

Endroit où l'informant réside (maison, appartement, quartier résidentiel, banlieue, etc...) / Type

of accommodation of the informant (house, flat, in a residential area, housing estate, block of

flats, etc.) : Appartement

Appendix 3. Informed Consent Release Forms



Consentement éclairé

Je soussigné(e), ...*[redacted]*...*[redacted]*

- autorise par la présente Mme/M. *Manon Ruggieri* à m'enregistrer en audio/vidéo
- autorise l'utilisation de ces données, sous leur forme enregistrée aussi bien que sous leur forme transcrite et anonymisée
 - à des fins de recherche scientifique (mémoires, thèses, articles scientifiques, exposés à des congrès, séminaires)
 - à des fins d'enseignement universitaire
 - pour une diffusion dans la communauté des chercheurs sous la forme d'éventuels échanges et prêts de corpus à des chercheurs, moyennant la signature d'une convention de recherche
 - pour une diffusion sur un site Internet dédié à la recherche
- prends acte que, pour toutes ces utilisations scientifiques, les données ainsi enregistrées seront anonymisées, cela signifie que les bandes audio qui seront présentées à des conférences ou des cours sous forme d'extraits seront nettoyées de toute information personnelle (nom, adresse, n° de téléphone...)
- souhaite que la contrainte supplémentaire suivante soit respectée :

.....
.....

Lieu et date

Aubagne, le 7/11/2020

Signature





Consentement éclairé

Je soussigné(e), **Mme C [REDACTED] D [REDACTED]**

- autorise par la présente **Mme Manon RUGGIERI**
à m'enregistrer en audio/vidéo
- autorise l'utilisation de ces données, sous leur forme enregistrée aussi bien que sous leur forme transcrite et anonymisée
 - à des fins de recherche scientifique (mémoires, thèses, articles scientifiques, exposés à des congrès, séminaires)
 - à des fins d'enseignement universitaire
 - pour une diffusion dans la communauté des chercheurs sous la forme d'éventuels échanges et prêts de corpus à des chercheurs, moyennant la signature d'une convention de recherche
 - pour une diffusion sur un site Internet dédié à la recherche
- prends acte que, pour toutes ces utilisations scientifiques, les données ainsi enregistrées seront anonymisées, cela signifie que les bandes audio qui seront présentées à des conférences ou des cours sous forme d'extraits seront nettoyées de toute information personnelle (nom, adresse, n° de téléphone...)
- souhaite que la contrainte supplémentaire suivante soit respectée :

.....
.....

Lieu et date

Marseille, le 17 octobre 2020

Signature



Consentement éclairé

Je soussigné(e), **Mme L. S.**,

- autorise par la présente **Mme Manon RUGGIERI**
à m'enregistrer en audio/vidéo
- autorise l'utilisation de ces données, sous leur forme enregistrée aussi bien que sous leur forme transcrite et anonymisée
 - à des fins de recherche scientifique (mémoires, thèses, articles scientifiques, exposés à des congrès, séminaires)
 - à des fins d'enseignement universitaire
 - pour une diffusion dans la communauté des chercheurs sous la forme d'éventuels échanges et prêts de corpus à des chercheurs, moyennant la signature d'une convention de recherche
 - pour une diffusion sur un site Internet dédié à la recherche
- prends acte que, pour toutes ces utilisations scientifiques, les données ainsi enregistrées seront anonymisées, cela signifie que les bandes audio qui seront présentées à des conférences ou des cours sous forme d'extraits seront nettoyées de toute information personnelle (nom, adresse, n° de téléphone...)
- souhaite que la contrainte supplémentaire suivante soit respectée :

.....
.....

Lieu et date

Aix-en-Provence, le 17 octobre 2020

Signature



Consentement éclairé

Je soussigné(e), ...H. [REDACTED] S. [REDACTED]

- autorise par la présente Mme/M. RUGGIERI Maura à m'enregistrer en audio/vidéo
- autorise l'utilisation de ces données, sous leur forme enregistrée aussi bien que sous leur forme transcrite et anonymisée

- à des fins de recherche scientifique (mémoires, thèses, articles scientifiques, exposés à des congrès, séminaires)
- à des fins d'enseignement universitaire
- pour une diffusion dans la communauté des chercheurs sous la forme d'éventuels échanges et prêts de corpus à des chercheurs, moyennant la signature d'une convention de recherche
- pour une diffusion sur un site Internet dédié à la recherche

- prends acte que, pour toutes ces utilisations scientifiques, les données ainsi enregistrées seront anonymisées, cela signifie que les bandes audio qui seront présentées à des conférences ou des cours sous forme d'extraits seront nettoyées de toute information personnelle (nom, adresse, n° de téléphone...)

- souhaite que la contrainte supplémentaire suivante soit respectée :

.....
.....

Lieu et date
M/M 120

Signature




Consentement éclairé

Je soussigné(e), Mme C ■■■ D ■■■,

- autorise par la présente **Mme Manon RUGGIERI**
à m'enregistrer en audio/vidéo
- autorise l'utilisation de ces données, sous leur forme enregistrée aussi bien que sous leur forme transcrite et anonymisée
 - à des fins de recherche scientifique (mémoires, thèses, articles scientifiques, exposés à des congrès, séminaires)
 - à des fins d'enseignement universitaire
 - pour une diffusion dans la communauté des chercheurs sous la forme d'éventuels échanges et prêts de corpus à des chercheurs, moyennant la signature d'une convention de recherche
 - pour une diffusion sur un site Internet dédié à la recherche
- prends acte que, pour toutes ces utilisations scientifiques, les données ainsi enregistrées seront anonymisées, cela signifie que les bandes audio qui seront présentées à des conférences ou des cours sous forme d'extraits seront nettoyées de toute information personnelle (nom, adresse, n° de téléphone...)
- souhaite que la contrainte supplémentaire suivante soit respectée :

.....
.....

Lieu et date

Marseille, le 17 octobre 2020

Signature





Consentement éclairé

Je soussigné(e), ...H. [REDACTED] [REDACTED]

- autorise par la présente Mme/M. ...RUSGIERI Manon
à m'enregistrer en audio/vidéo
- autorise l'utilisation de ces données, sous leur forme enregistrée aussi bien que sous leur forme transcrite et anonymisée
 - à des fins de recherche scientifique (mémoires, thèses, articles scientifiques, exposés à des congrès, séminaires)
 - à des fins d'enseignement universitaire
 - pour une diffusion dans la communauté des chercheurs sous la forme d'éventuels échanges et prêts de corpus à des chercheurs, moyennant la signature d'une convention de recherche
 - pour une diffusion sur un site Internet dédié à la recherche
- prends acte que, pour toutes ces utilisations scientifiques, les données ainsi enregistrées seront anonymisées, cela signifie que les bandes audio qui seront présentées à des conférences ou des cours sous forme d'extraits seront nettoyées de toute information personnelle (nom, adresse, n° de téléphone...)
- souhaite que la contrainte supplémentaire suivante soit respectée :

.....
.....

Lieu et date

Paris, 13/10/2020

Signature





Consentement éclairé

Je soussigné(e), **Mme J [REDACTED] G [REDACTED]**,

- autorise par la présente **Mme Manon RUGGIERI**
à m'enregistrer en audio/vidéo
- autorise l'utilisation de ces données, sous leur forme enregistrée aussi bien que sous leur forme transcrite et anonymisée
 - à des fins de recherche scientifique (mémoires, thèses, articles scientifiques, exposés à des congrès, séminaires)
 - à des fins d'enseignement universitaire
 - pour une diffusion dans la communauté des chercheurs sous la forme d'éventuels échanges et prêts de corpus à des chercheurs, moyennant la signature d'une convention de recherche
 - pour une diffusion sur un site Internet dédié à la recherche
- prends acte que, pour toutes ces utilisations scientifiques, les données ainsi enregistrées seront anonymisées, cela signifie que les bandes audio qui seront présentées à des conférences ou des cours sous forme d'extraits seront nettoyées de toute information personnelle (nom, adresse, n° de téléphone...)
- souhaite que la contrainte supplémentaire suivante soit respectée :

.....
.....

Lieu et date

Porto-Vecchio, le 17 octobre 2020

Signature





Consentement éclairé

Je soussigné(e), **Mme F [REDACTED] B [REDACTED]**,

- autorise par la présente **Mme Manon RUGGIERI**
à m'enregistrer en audio/vidéo
- autorise l'utilisation de ces données, sous leur forme enregistrée aussi bien que sous leur forme transcrite et anonymisée

- à des fins de recherche scientifique (mémoires, thèses, articles scientifiques, exposés à des congrès, séminaires)
- à des fins d'enseignement universitaire
- pour une diffusion dans la communauté des chercheurs sous la forme d'éventuels échanges et prêts de corpus à des chercheurs, moyennant la signature d'une convention de recherche
- pour une diffusion sur un site Internet dédié à la recherche

- prends acte que, pour toutes ces utilisations scientifiques, les données ainsi enregistrées seront anonymisées, cela signifie que les bandes audio qui seront présentées à des conférences ou des cours sous forme d'extraits seront nettoyées de toute information personnelle (nom, adresse, n° de téléphone...)

- souhaite que la contrainte supplémentaire suivante soit respectée :

.....
.....

Lieu et date

le 16/10/2020 à Aix en Provence

Signature



Appendix 4. Google Form Survey: 'Enquête de phonétique sur l'accent du sud-est'

Source of the photograph: Manon Ruggieri (personal photograph).

Video editor: Manon Ruggieri. Software used: ShotCut.



Enquête phonétique sur l'accent du Sud-Est

*Obligatoire

Bonjour et bienvenue ! Merci de participer à cette enquête !

Vous allez écouter 10 audios (regroupés dans la vidéo en lien). Vous devrez juger si les personnes enregistrées ont un accent du Sud-Est ou pas. Pour participer à cette enquête, vous aurez donc besoin du son de votre ordinateur ou autre appareil (l'utilisation d'écouteurs est conseillée).
Par accent du Sud-Est, nous comprenons l'accent Marseillais ou Provençal, localisé dans les départements du sud-est de la France métropolitaine.

C'est maintenant à vous de jouer ! Tendez bien l'oreille !

Enquête de phonétique - L'accent du sud-est



Locutrice n°1

La locutrice n°1 parle avec un accent du sud-est... *

- D'accord
- Plutôt d'accord
- Difficile à dire
- Pas vraiment d'accord
- Pas d'accord

Si oui, son accent est-il...

- Très marqué (fort)
- Marqué (moyen)
- Léger (faible)
- Difficile à dire

The same pattern is repeated for the other nine speakers (*locutrices*).

Locutrice n°10

La locutrice n°10 parle avec un accent du sud-est... *

- D'accord
- Plutôt d'accord
- Difficile à dire
- Pas vraiment d'accord
- Pas d'accord

Si oui, son accent est-il...

- Très marqué (fort)
- Marqué (moyen)
- Léger (faible)
- Difficile à dire

Suivant



Enquête phonétique sur l'accent du Sud-Est

*Obligatoire

Informations personnelles vous concernant

Ces informations vous sont demandées à titre indicatif. Nous vous rappelons que ce questionnaire est anonyme.

Renseignez votre sexe : *

- Femme
- Homme
- Ne se prononce pas

Renseignez votre âge : *

- Moins de 29 ans
- Entre 30 et 44 ans
- Entre 45 et 59
- Plus de 60 ans

Renseignez votre âge : *

- Moins de 29 ans
- Entre 30 et 44 ans
- Entre 45 et 59
- Plus de 60 ans

Avez-vous vécu dans le sud-est durant la majeure partie de votre vie ? *

- Oui
- Non

Dans quelle ville ? (peu importe la réponse à la question précédente) *

Votre réponse _____

Considérez-vous avoir vous-même un accent du sud-est ? *

- Oui
- Non
- Je ne sais pas

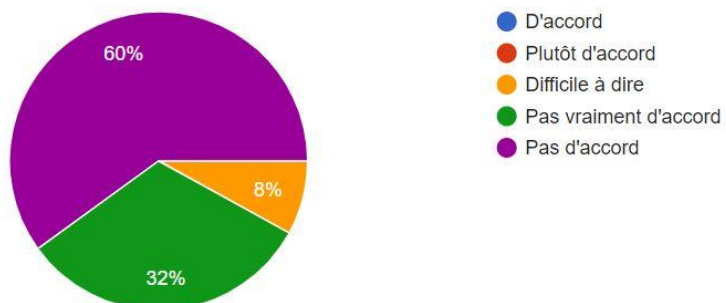
Retour

Envoyer

Appendix 5. Google Form results

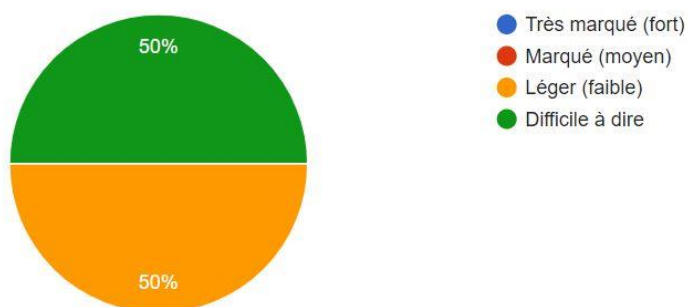
La locutrice n°1 parle avec un accent du sud-est...

25 réponses



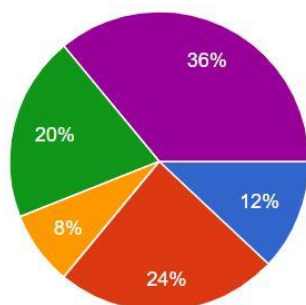
Si oui, son accent est-il...

6 réponses



La locutrice n°2 parle avec un accent du sud-est...

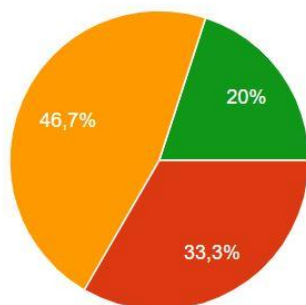
25 réponses



- D'accord
- Plutôt d'accord
- Difficile à dire
- Pas vraiment d'accord
- Pas d'accord

Si oui, son accent est-il...

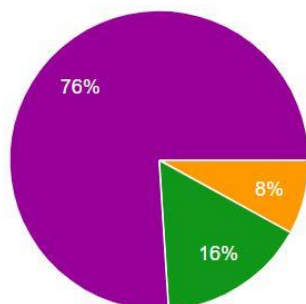
15 réponses



- Très marqué (fort)
- Marqué (moyen)
- Léger (faible)
- Difficile à dire

La locutrice n°3 parle avec un accent du sud-est...

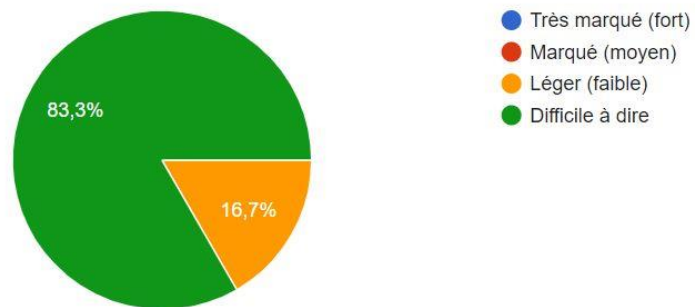
25 réponses



- D'accord
- Plutôt d'accord
- Difficile à dire
- Pas vraiment d'accord
- Pas d'accord

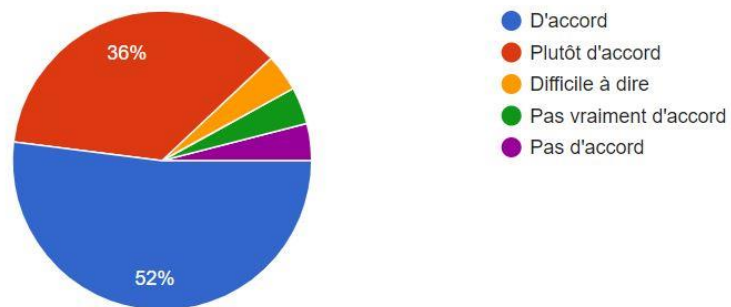
Si oui, son accent est-il...

6 réponses



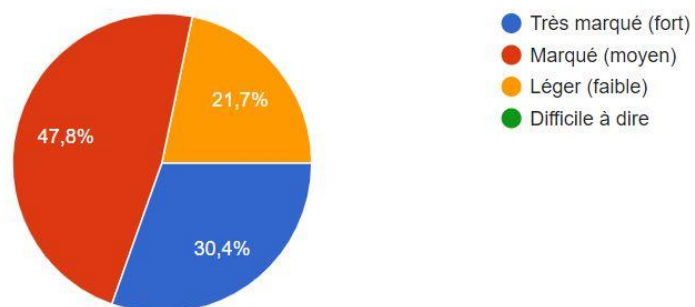
La locutrice n°4 parle avec un accent du sud-est...

25 réponses



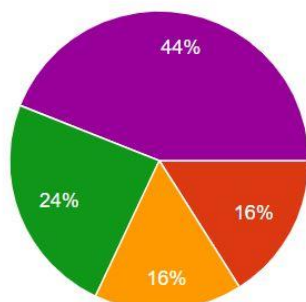
Si oui, son accent est-il...

23 réponses



La locutrice n°5 parle avec un accent du sud-est...

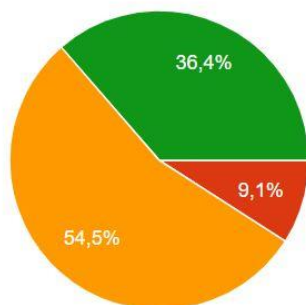
25 réponses



- D'accord
- Plutôt d'accord
- Difficile à dire
- Pas vraiment d'accord
- Pas d'accord

Si oui, son accent est-il...

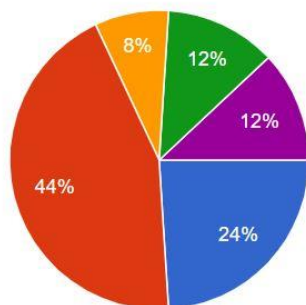
11 réponses



- Très marqué (fort)
- Marqué (moyen)
- Léger (faible)
- Difficile à dire

La locutrice n°6 parle avec un accent du sud-est...

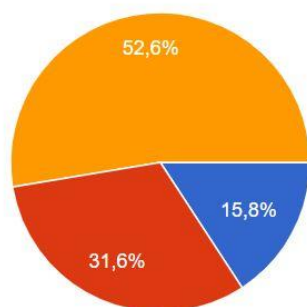
25 réponses



- D'accord
- Plutôt d'accord
- Difficile à dire
- Pas vraiment d'accord
- Pas d'accord

Si oui, son accent est-il...

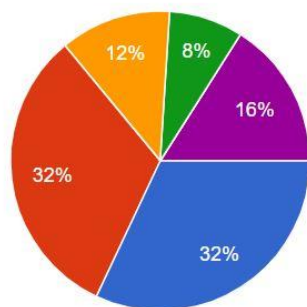
19 réponses



- Très marqué (fort)
- Marqué (moyen)
- Léger (faible)
- Difficile à dire

La locutrice n°7 parle avec un accent du sud-est...

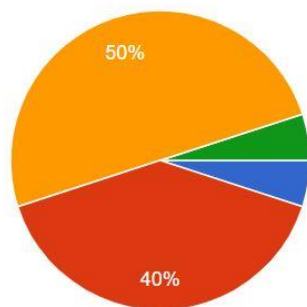
25 réponses



- D'accord
- Plutôt d'accord
- Difficile à dire
- Pas vraiment d'accord
- Pas d'accord

Si oui, son accent est-il...

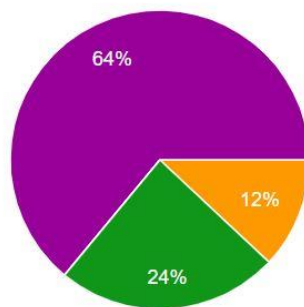
20 réponses



- Très marqué (fort)
- Marqué (moyen)
- Léger (faible)
- Difficile à dire

La locutrice n°8 parle avec un accent du sud-est...

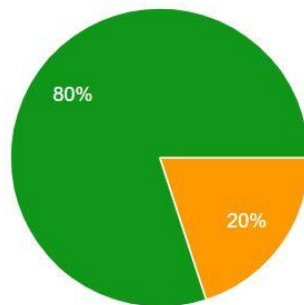
25 réponses



- D'accord
- Plutôt d'accord
- Difficile à dire
- Pas vraiment d'accord
- Pas d'accord

Si oui, son accent est-il...

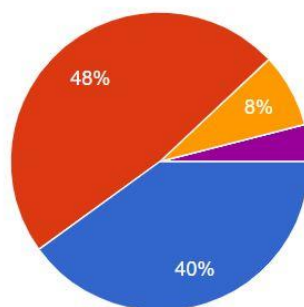
5 réponses



- Très marqué (fort)
- Marqué (moyen)
- Léger (faible)
- Difficile à dire

La locutrice n°9 parle avec un accent du sud-est...

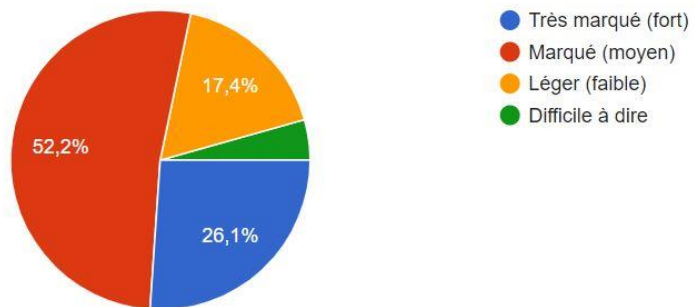
25 réponses



- D'accord
- Plutôt d'accord
- Difficile à dire
- Pas vraiment d'accord
- Pas d'accord

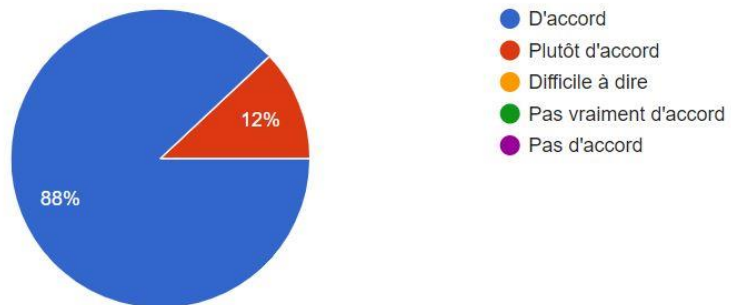
Si oui, son accent est-il...

23 réponses



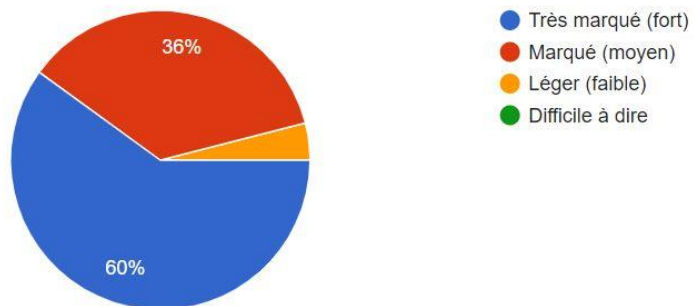
La locutrice n°10 parle avec un accent du sud-est...

25 réponses



Si oui, son accent est-il...

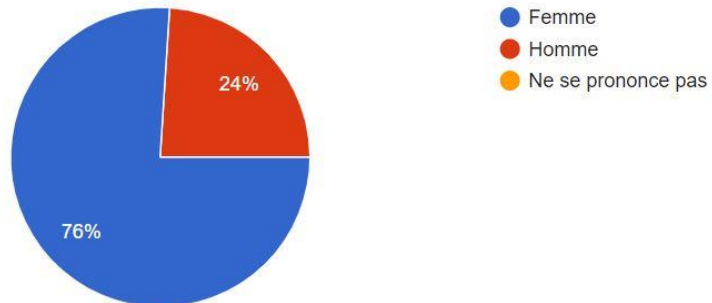
25 réponses



Informations personnelles vous concernant

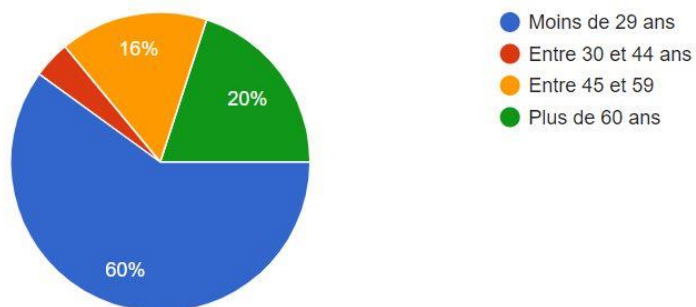
Renseignez votre sexe :

25 réponses



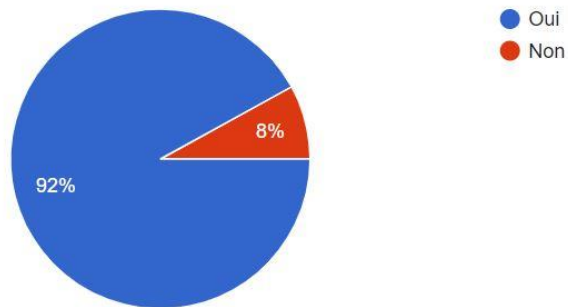
Renseignez votre âge :

25 réponses



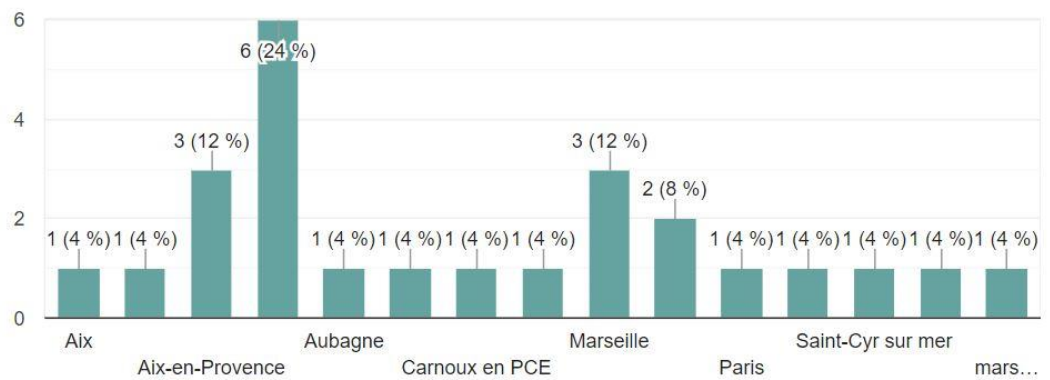
Avez-vous vécu dans le sud-est durant la majeure partie de votre vie ?

25 réponses



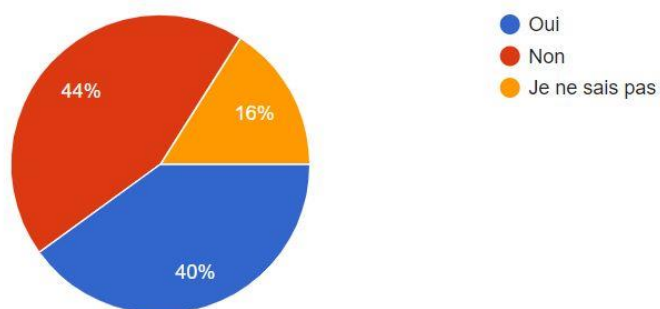
Dans quelle ville ? (peu importe la réponse à la question précédente)

25 réponses



Considérez-vous avoir vous-même un accent du sud-est ?

25 réponses



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