UNIVERSITE D'ABOMEY-CALAVI

-----&-----

FACULTE DES LETTRES ARTS ET SCIENCES HUMAINES
(FLASH)

-----&-----

ECOLE DOCTORALE PLURIDISCIPLINAIRE
(Espace Culture et Développement)

-----&-----

Filière : Linguistique **Option** : Description Linguistique

MEMOIRE DE DEA

PHONOLOGICAL ADAPTATION OF LOANWORDS FROM FRENCH INTO ENGLISH AND THEIR APPROPRIATION BY FRENCH SPEAKERS LEARNING ENGLISH: A CASE STUDY

Présenté et soutenu par :

Codjo Claude Roger HOUMASSE

Sous la direction de :

Prof. Dr. Flavien GBETO

Professeur Titulaire de Linguistique et d'Etudes Africaines
Université d'Abomey-Calavi

Année académique : 2009 – 2010

Soutenu le 25 Février 2010

...to my brothers and sisters

ACKNOWLEDGEMENTS

I wish here to express my thanks to the staff of Ecole Doctorale Pluridisciplinaire, the lecturers of the Département des Sciences du Language et de la Communication (DSLC) and of the English Section of Université d'Abomey-Calavi as a whole, and more importantly to Prof. Flavien Gbéto and Dr. Bertin Yèhouénou for calling post-graduate studies to my mind and providing me with assistance.

I am indebted to Prof. Flavien Gbéto for having accepted to supervise this work, and without whose faith in me this study could not have been achieved.

I would like to thank Prof. Hounkpati Capo for his supportive advice and for having made available his library at Labo-Gbé. I don't forget the staff of Centre National de Linguistique Appliquée (CENALA) for the same purpose.

I also owe out thanks to Dr. Leonard Koussouhon for his contribution to the correction of this document.

I am also highly grateful to Rosalie Tossou Anassidé, Célestine Amèdjrana Lodakpa, Joël Houmassè, Gisèle Houmassè, Lionel Zadji, Michel Atima, Dimitri Dègnidé, Hugues Tchibozo, Albert Koukpossi, Martino Azonhotodè, Martine Adjovi, Blanche Adjolohoun, Suzane Yahouédéhou Agbazahou, Pauline Dassi, Jean Hounkpè, Boniface Zossougbo, Antoine

Hounmassè, Jacques Avocè, Roger Logozo, and Zakariaou Radji for their valuable help.

My special thanks to Sis. Florence Laourou, Bernard Vlakpa, and Yves Goudjo for providing me with a long list of loanwords.

I appreciate the helpful attitude and cooperation of students of both Abomey-Calavi and Porto-Novo campuses who took part in the interview and the experiment.

Thanks also to Delphine Edjiglèlè, Assanath Ousmane, Awaou Elégbédé, and Gildas Allognon for having organised the different meetings with the participants in the interview and the experiment.

My regards may not overlook my dear wife Tania Anassidé, and my mother Mrs. Marguerite Fagbélou Houmassè for their encouragements. I can't forget my late daughter Armelle Houmassè, who has answered the call of God when I was trying my best to finish this work earlier. May her soul rest in perfect peace.

May God richly bless you all!

Roger Houmassè

TABLE OF CONTENTS

TABLES AND FIGURES

TABLES

FIGURES

SIGNS, ACRONYMS AND ABBREVIATIONS

- […]: Phonetic transcription

- /…/: Phonemic transcription

- < … >: Grapheme

- TL or L1: Target Language / First Language

- SL or L2: Source Language / Second Language

- EFL: English as a Foreign Language

- ESL: English as a Second Language

- CLT: Communicative Language Teaching

- IPA: International Phonetic Alphabet

- TCRS: Theory of Constraints and Repair Strategy

- OT: Optimality Theory

- C: Consonant

- V: Vowel

- AR: Adaptation Rate

- VAR: Vowel Adaptation Rate

- CAR: Consonant Adaptation Rate

INTRODUCTION

Language is the most common way available to human beings to communicate among themselves. So defined, language is an important means of socialisation. It favours contacts of people of different cultures and traditions; people from different towns, villages, countries and continents. Contacts of people forcibly echo contact of languages, insofar as people use language to exchange.

Language is also a living item. In order to be kept alive, a language must be spoken and enriched with new lexical items. Falling short of that requirement may sign the death of the language in question.

Age old contacts between people speaking different languages can contribute to lexical enrichment through what is known as loan. Loan is the process whereby a language borrows an item from another language and uses it as its own. The borrower is called Target Language (TL) or L1, the lender is called Source Language (SL) or L2, and the borrowed item is called loanword. As far as this study is concerned, the TL is English, whereas the SL is French.

But words are not borrowed without purpose. There are many motivations such as:

(a) the referent is borrowed at the same time as its denomination;

(b) the word does not exist in the extra-linguistic reality of the borrowing culture;

(c) the word is borrowed on the pressure of a dominance linguistic community (this particularly concerns the computing domain).[1]

During the borrowing, a word "travelling" from an SL usually undergoes repairs so as to fit the phonotactics[2] of the TL, as exemplified in (1):

(1)

		French	*English*
(a)	Garage	[gaʀaʒ]	['gærɪʤ][3]
(b)	À gogo	[agogo]	[ə'gəʊgəʊ]
(c)	Chagrin	[ʃagʀɛ̃]	['ʃægrɪn]

In (1a), the French /ʒ/ in [gaʀaʒ] yielded /ʤ/ in the English adapted form, that is ['gærɪʤ] instead of *['gærɪʒ]. This can be explained by the fact that (in the phonological analysis of English) /ʒ/ *occurs finally only after* /iː, ɑː, uː, eɪ/ *in words of recent French origin* (Gimson 1970:243). In (1b), the French /o/ in [agogo] does not exist in the English vocalic system. So it is

[1] See Sannier, Frédérique et al. Online at http://www.shlrc.mq.edu.au/proceedings/iclsp98/PDF/AUTHOR/SL980497.PDF

[2] Phonotactics is a branch of phonology that deals with restrictions in a language on the permissible combinations of phonemes. Phonotactics defines permissible syllable structure, consonant clusters, and vowel sequences by means of phonotactical constraints. *(Definition available at http://en-wikipedia.org)*

[3] The phonetic symbols I use in this document are the ones of the International Phonetic Alphabet (IPA).

adapted in /əʊ/, i.e. [ə'gəʊgəʊ]. The example in (1c) illustrates the fact that unlike the French language, nasal vowels are disallowed in English. The French nasal vowel /ɛ̃/ systematically yielded the /ɪn/ sequence. Then, the English adaptation of the French word [ʃagʀɛ̃] is ['ʃægrɪn].

Working on loanwords adaptation is always relevant and it will remain so as long as language contact occurs. Words can be borrowed in any period. For instance, *anatomy*, *muscle*, *promenade*, *liaison*, *faux pas* were borrowed from French into English in the 17th Century; *bouquet*, *liqueur*, *envelope*, *nuance*, *souvenir…*, in the 18th Century. *Cliché*, *chef*, *menu*, *restaurant*, *gourmet*, *blasé…*, were borrowed in the 19th Century. In the 20th Century, *garage*, *crêpe*, *dressage* …, entered the English language lexicon[4].

Once borrowed, loanwords are adapted to the phonology of the target language in order not to sound ill-form from the TL speaker's standpoint. It also aims at testing the productivity of the TL's phonological rules and constraints (Kenstowicz 2003:1).

The choice of the topic stems from a remark that I made through my contacts and conversations with Benin EFL students of Abomey-Calavi University. It appeared from these contacts and conversations that the great majority of these English learners face difficulties in holding conversations in English, even though they have an acceptable level in grammar and

[4] See Dawson (2004: 9)

vocabulary. In other words, they frequently face problems of miscommunication due to mispronunciation added to less or no command of the phonology of English. This is worsened when the word at stake is already known and pronounced as a French word. If the pronunciation of pure English words is not sufficiently mastered in order to hold a conversation, what will happen to loanwords? This is the main concern of this research work, which leaded me to ask the following research questions:

a) What are the adapted forms of French loanwords to the phonology of English?
b) To what extent the English adapted forms (the output) are different from the French words (the input)?
c) What is the fate of French loanwords when they come at stake in conversations involving Benin EFL students?
d) What consideration do Benin EFL students give to loanwords from French into English?

To answer these questions I assign the following objectives to the study. The main objective is to contribute to what is being done in the framework of Communicative Language Teaching (CLT) at the English Section of Abomey-Calavi University, by making available the adapted forms of French phonemes to the sound system of English. In other words, I would like to shed light on the adapted forms of French loanwords to the sound

system of English, and the use Benin EFL students make of them. Specifically, it is about to:

- make an inventory of French and English consonant and vowel phonemes;
- find out some loanwords from French to illustrate French vowel and consonant phonemes;
- find and make available the adapted forms of French phonemes to the sound system of English through phonemic or phonetic transcriptions available in dictionaries;
- test Benin EFL students' ability to adapt loanwords from French to the sound system of English.

In order to achieve these goals, I organise the study in four chapters. In chapter one I define some terms, show how important phonological theories are in loanword adaptations, and give account of related literature. Chapter two is about segmental inventory and adaptation of French phonemes to English. As to chapter three, it deals with the research methodology. In the last chapter, I give the results followed by a discussion of the principal findings and recommendations based on the findings.

CHAPTER ONE

BACKGROUND

In this chapter I am going to give the definitions of some terms such as loanword, borrowing, phonology and phonological rules. I will make the distinction between "adaptation" and "integration" of loanwords, present the Theory of Constraints and Repair Strategies (TCRS), and the Optimality Theory (OT). This chapter will end with the literature review where the perceptual (phonetic), the phonological (grammatical) and the joint phonology-perception approaches to loanword adaptation will be discussed.

1.1. Definition of terms

1.1.1. Loanwords and Borrowing

The term "loanword" is a compound word resulting from the combination of "loan" and "word". "Loan" (as a noun) is the state of being lent. In other words, a loan occurs when "A" is in need of something "B" possesses. It can be a car, a house, money, etc. But in the current case, the object needed is "word" (this is known as linguistic loan). "Words" are lexical or grammatical items in a language[5]. For example, *garage, savant, big, talk, quickly* etc. are lexical or content words; whereas *I, you, with, the, some, but,*

[5] In the great majority of cases, loans are operated on lexical items.

and, etc. are grammatical or function words[6]. Words are used to convey messages or express meaning. The great difference between a linguistic loan and the others is that a "word" is not a physical item. Unlike a car or money, a loanword does not disappear from the source language lexicon. Consequently, there is no need to give it back to the lender. So loanwords are words from a language X, adapted and integrated into another language Y. For instance *anatomy*, *bouquet*, *restaurant*, *dressage* are examples of French loanwords in the English language.

The distinction between 'loanword' and 'borrowing' is not clear-cut. Chékété (2005) observes that "*L'emprunt désigne à la fois le processus d'insertion dans la langue d'unités lexicales étrangères et ces unités elles mêmes."*[7] So the French word "emprunt" stands for "loanword" and "borrowing" as well. Paradis defined borrowing as *"an individual word, or compound functioning as a single word, from L2 that phonologically conforms to (at least) the outermost peripheral constraints of the target language[…], and that is incorporated into the discourse of L1"* (1996:4). The word "tête-à-tête" functions as a single word like "garage".

Conversely, borrowing is different from code-switching. Code-switching can be illustrated by the switch speakers may make depending on

[6] Content or lexical words have dictionary meaning, whereas grammatical or lexical words do not. Content words are so called because they carry the 'content' of the sentence or utterance. As to function words, they help the sentence or utterance to 'function' syntactically.

[7] (The French word) *'Emprunt'* stands for the process of inserting foreign lexical items into a language, as well as the items themselves. (My translation)

who they are talking to, or where they are. For instance, code-switching may occur between standard and regional forms of English[8]. Code-switching involves bilinguals (or multilinguals) in discourse, often with no change of interlocutor or topic. Word(s) or expression(s) used during the missing is/are not integrated into the target language unlike loanwords.

1.1.2. Loanword adaptation and loanword integration

The terms "adaptation" and "integration" relating to loanwords have been used as antonyms. Adaptation is sometimes opposed to integration: non-integrated loanwords are said to be adapted.

But loanword integration is beyond adaptation. According to Peperkamp, loanword adaptations are *"the transformations that apply to words when they are borrowed into a foreign language"* (2005:1). He went further by saying that "*loanword adaptations are mainly transformations that apply to foreign forms that would be ill-formed if they were borrowed without modification"* (Peperkamp 2005:4). Then loanword adaptations are the process whereby the shape of foreign words is changed in order to make them comply with the surface phonological structure of the borrowing language. For example <adieu>[adjø] (French) yields <adieu>[ə'djuː] (English). The

[8] See "Code-switching" in Crystal, David. 1985. *A Dictionary of Linguistics and Phonetics.* 2nd ed. Oxford: Blackwell

French vowel /ø/ does not exist in the English vocalic system. So it is adapted in the English vowel /uː/.

Once loanwords are adapted to the target language, they can be progressively integrated. Integrated loanwords are "*words that have entered the lexicon of the borrowing language. Monolingual speakers who use these loanwords never hear their source form*" (Peperkamp 2005:2). English words such as *solution*, *garage*, *muscle*, *important*, *restaurant*… can be called integrated loanwords since they are considered as pure English words by native and non-native speakers of English

1.1.3. Phonology or Phonological rules and loanword adaptation

Any attempt to define loanword, borrowing or the process of loanword adaptation refers to the phonology of the target language. Words borrowed from a source language contain sound segments that sound ill-formed in the TL. These segments are made conform to the phonology (according to the phonological rules) of the TL during the adaptation process. So, phonology or phonological rules are strongly involved in loanword adaptation.

Phonology is the study of the sound patterns found in human language. It is concerned with the range and function of sounds in a specific language. It includes the inventory of sounds and rules for their combination and pronunciation. Phonology is intimately connected with phonetics. Phonetics studies the sounds of speech without taking into account their role in the

language they belong to. The distinction between phonetics and phonology is that the segments analysed by phonetics are called sounds, and belong to speech; whereas units described by phonology are called phonemes, and belong to a particular language such as French, English, Dendi, Fon, etc. The following table[9] in (2) gives a summarising overview of the differences between phonetics and phonology:

(2)

PHONETICS	**PHONOLOGY**
Sounds as such	Sounds as part of a sound system
Language use (*parole*)	Language system (*langue*)
Language-independent	Language-dependent
Substance	Function
Concrete	Abstract
Phone [ ]	Phoneme / /

Table 1: Differences between phonetics and phonology[10]

Phonological rules are statements (made available by linguists) in the phonological component of a grammar which account for the sound patterns and constraints in a language. They are rules which apply to phonemic representations to derive phonetic representations or pronunciation. Phonological rules include phonotatics, which are phonemes realisations attested in a language. English for example "*does not exploit, in the word and the syllable, all the possible combinations of its phonemes. For instance, long*

[9] See http://introling.ynada.com/cathegory/phonetics-phonology
[10] Available online at http://introling.ynada.com/category/phonetics-phonology

vowels and diphthongs do not precede final /ŋ/; /e, æ, ʌ, ɒ/ do not occur finally; the types of consonant clusters permitted are subject to constraints" (Gimson 1970:239).

Sound segments or combinations which are not attested, as I've said earlier, are made conform to the phonotatics of the recipient language. But this is not done randomly. Any adaptation is subject to phonological theories.

1.2. Loanword adaptation and phonological theories: TCRS and OT

Any scientific research, especially in the field of loanword phonology is based on theoretical consideration(s). The Theory of Constraint and Repair Strategies (TCRS) and the Optimality Theory (OT) have caught my attention.

1.2.1. Theory of Constraints and Repair Strategies

Paradis (1996) organised the TCRS in six points as follows[11]:

(A) PRESERVATION PRINCIPLE: Segmental information is maximally preserved, within the limits of the Threshold Principle.

(B) THRESHOLD PRINCIPLE:

a) All languages have a tolerance threshold to segment preservation.

b) This threshold is set at two steps (or two repairs) within a given constraint domain.

[11] For further reading see Paradis (1996) at http://www.lli.ulaval.ca./pages_professeurs/documrntsparadiscarole/Paradis_1996.pdf

(C) REPAIR STRATEGY: A universal, non-contextual phonological operation that is triggered by the violation of a phonological constraint, and which inserts or deletes content or structure to ensure conformity to the constraint.

Repair strategies apply according to the Minimality Principle in (D).

(D) MINIMALITY PRINCIPLE: Repairs

a) apply at the lowest phonological level to which the violated constraint refers and

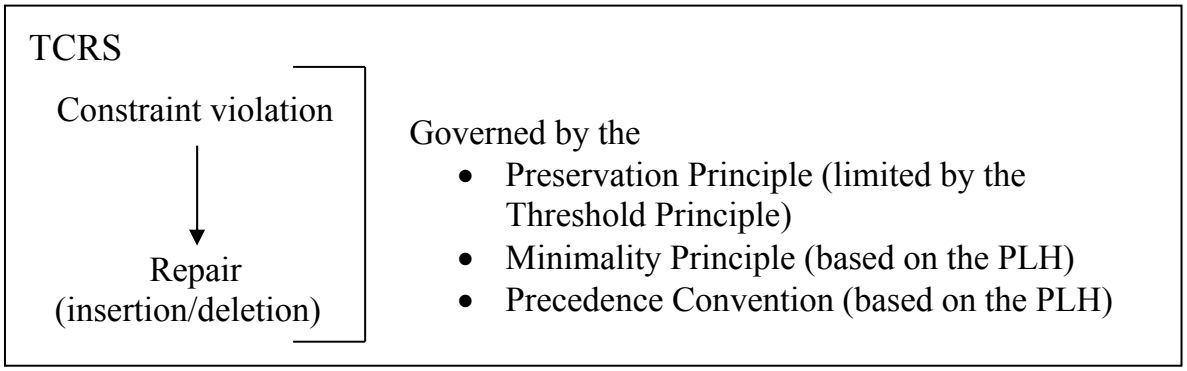
b) involve as few strategies (steps) as possible.

(E) PHONOLOGICAL LEVEL HIERARCHY (PLH): Metrical level > syllabic level > skeletal level > root node > non-terminal feature > terminal feature.

(F) PRECEDENCE CONVENTION: In a situation involving two or more violated constraints, priority is given to that constraint referring to the highest phonological level of the PLH.

An overview of the organisation of TCRS is provided in (G):

(G) Overview of TCRS:



Source: Paradis (1996) op. cit.

1.2.2. Optimality Theory

Optimality Theory[12] (OT) is a linguistic model proposing that the observed forms of language arise from the interaction between conflicting constraints[13]. It was originally proposed by the linguists Alan Prince and Paul Smolensky. They observed that

> Optimality Theory relies on a conceptually simple but surprisingly rich notion of constraint interaction whereby the satisfaction of one constraint can be designated to take absolute priority over the satisfaction of another. The means that a grammar uses to resolve conflicts is to rank constraints in a strict dominance hierarchy. Each constraint has absolute priority over all the constraints in the hierarchy (Prince & Smolensky 2002:2).

There are three basic components of the theory:

- GEN generates for any given input a large space of candidate analyses by freely exercising the basic structural resources of the representational theory. The idea is that the desired output lies somewhere in this space, and the constraint system of the grammar is strong enough to single it out.

- CON provides the criteria, violable constraints used to decide between candidates. There are two basic types of constraints. Faithfulness constraints require that the surface form (the output) match the underlying or

[12] See Wikipedia, the free encyclopedia online at http://en.wikipedia.org/wiki/Optimality_theory and Prince, Alan & Paul Smolensky.2002. (ROA version), online at http://roa.rutgers.edu/files/537-0802/537-0802-PRINCE-0-0.PDF for further reading on the OT.

[13] Universal grammar provides a set of highly general constraints. These often conflicting constraints are all operative in individual languages. Languages differ primarily in how they resolve the conflicts: in the way they rank these universal constraints in strict domination hierarchies that determine the circumstances under which constraints are violated. A language particular grammar is a means of resolving the conflicts among universal constraints (Prince & Smolensky 2002:3).

lexical form (the input) in some particular way; that is, these constraints require identity between input and output forms. Markedness constraints impose requirements on the structural well-formedness of the output. Each plays a crucial role in the theory. Faithfulness constraints prevent every input from being realised as some unmarked form, and markedness constraints motivate change.

- EVAL chooses the optimal candidate based on the constraints. Given two candidates, A and B, A is better than B on a constraint if A incurs fewer violations than B. Candidate A is better than B on an entire constraint hierarchy if A incurs fewer violations of the highest-ranked constraint distinguishing A and B. A is optimal in its candidate set if it is better on the constraint hierarchy than all other candidates. For example, given constraints C_1, C_2, and C_3, where C_1 dominates C_2, which dominates C_3 ($C_1 >> C_2 >> C_3$), A is optimal if it does better than B on the highest ranking constraint which assigns them a different number of violations. If A and B tie on C_1, but A does better than B on C_2, A is optimal, even if A has 100 more violations of C_3 than B. This comparison is often illustrated with a tableau. The pointing arrow marks the optimal candidate, and each cell displays the number of violations for a given candidate and constraint. Once a candidate does worse than another candidate on the highest ranking constraint distinguishing them, it incurs a crucial violation (marked in the tableau by an exclamation mark).

Once a candidate incurs a crucial violation, there is no way for it to be optimal, even if it outperforms the other candidates on the rest of CON.

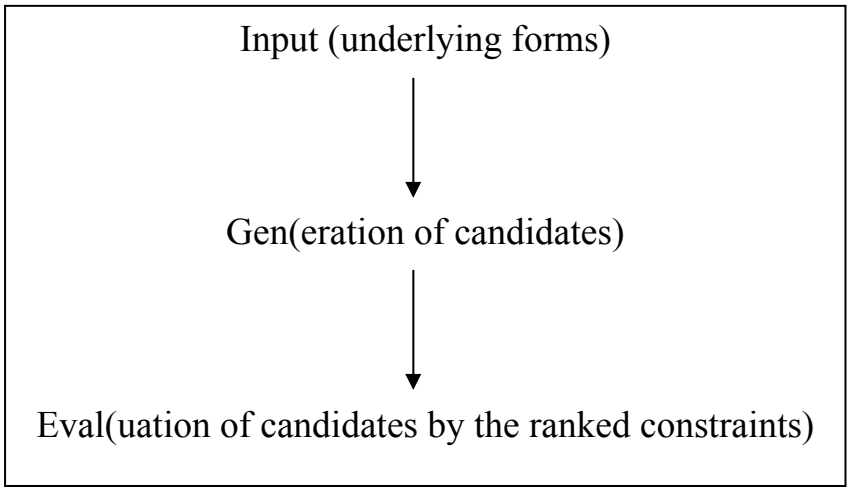
(3)

Constraints		C_1	C_2	C_3
Candidates	→ A	*	*	***
	B	*	** !	

Table 2: An illustration of constraints violation in Optimality Theory[14]

Paradis (1996:18) summarized the organisation of phonology in Optimality Theory as sketched below in (4):

(4)



1.3. Literature review

The process of loanword adaptation is the one whereby an input containing ill-formed sounds or phonological structures in the TL undergoes transformation or reparation. The result is an output which complies with the

[14] Adapted from Wikipedia, the free encyclopedia online at http://en.wikipedia.org/wiki/Optimality_theory

phonology of the borrowing language. A question that comes to mind is: How can loanword adaptation be explained?

The discussion on loanword adaptation generally revolves around the question whether their adaptation takes place in perception (phonetic), in phonology (grammar), or in both.

1.3.1. The perception-only approach

Researchers endorsing the perception (phonetic) approximation view of loanword adaptation basically posit that perceptual (and, thereby, acoustic) similarity is responsible for the way L2 forms are mapped onto L1 forms. Though some studies may imply otherwise, phonology is not relevant under this view. On the contrary, it is precisely the perceptual biases from the L1 phonological system that are generally thought to result in unfaithful perception of L2 forms[15].

The perception-only approach receives support from Peperkamp (2005), Peperkamp & Dupoux (2003), Vendelin & Peperkamp (2004), Gbéto (2000a) among others. As observed by Peperkamp and Dupoux, "*loanword adaptations take place during perception and are due to the automatic process of phonetic decoding, which maps nonnative sound patterns onto the phonetically closest ones*" (2003: 369). Following Peperkamp & Dupoux (2003), Vendelin and Peperkamp argue that "*loanword adaptations reflect*

[15] See Chang (in press)

perceptual assimilation, according to which foreign words are assimilated to the phonetically closest legal surface structures of the native language" (2004:5). The following examples in (5) give support to the phonetic approximation to loanword adaptation.

(5) Examples of perceptual approximation

(5a) Adaptation of French /ʀ/ into Fon:

To prove that loanword adaptation is based on perception, Gbéto (2000a) focussed on the adaptation of the French /ʀ/ by Fon speakers. He opines that "*le* R *français est perçu par les locuteurs Fon comme étant formé de la sequence* /ʁl/"[16] (Gbéto 2000a: 27). An evidence of this is that of /ʀ/ in initial position. It functions according to the following rule followed by examples (see Gbéto 2000a: 24-25).

Rule: R ⟶ ʁl / # ___

Examples:	*French*		*Fon*	*gloss*
	radio	[ʀa'dʲo] ⟶	ʁlāndʲô	radio
	rayon	[ʀɛ'ɲɔ̃] ⟶	ʁlɛ̄ɲɔ̃̂	spoke
	rideau	[ʀi'do] ⟶	ʁlīdô	curtain
	raie	['ʀɛ] ⟶	ʁlɛ̌	a parting

[16] The French ʀ is perceived by Fon speakers as made of the /ʁl/ sequence. (My translation)

The French /ʀ/ yields the Fon /ʁl/ which is nothing but a fricative (/ʁ/) followed by a lateral (/l/).[17] Such adaptation is explained by the fact that "*ceux qui ont introduit le français en milieu Fon réalisent deux constrictions, l'une à l'avant, l'autre à l'arrière de la cavité buccale pour la prononciation du R français*"[18] (Gbéto 2000a: 27).

(5b) English /v/ in Cantonese[19]:

Cantonese does not have the voiced fricative /v/, only its voiceless counterpart /f/. However, English /v/ is not adapted as the phonologically closest phoneme /f/, but as the acoustically most similar Cantonese /w/.

(5c) Adaptation of English and French /n/ into Japanese:

English and French word-final /n/ are adapted differently in Japanese, English /n/ as the Japanese moraic nasal /n/, French /n/ as a nasal geminate followed by an epenthetic vowel *–nnu*. This, Vendelin & Peperkamp (2004) argue, is due to the phonetic differences between

[17] See Gbéto 2000a: 27

[18] Those who have brought the French language into the Fon environment make two obstructions, one at the front and the other at the back of the mouth cavity in the course of pronunciation of the French ʀ. (My translation)

[19] See Dohlus (2005:120-121)

English /n/ (no release) and French /n/ (release and longer duration) which are perceived by Japanese listeners.

These examples demonstrate that "*loanword adaptations are not due to the phonological grammar, but rather to perceptual processes involved in the decoding of nonnative sounds*" (Peperkamp & Dupoux 2003:367).

1.3.2. The phonology-only approach

The phonological approximation view of loanword adaptation contends that L2-to-L1 mapping occurs on the basis of phonological distance rather than phonetic distance between categories: a foreign L2 segment is replaced by the L1 segment that is the closest phonologically (in term of features), which is not necessarily the segment that is the closest perceptually.

The phonological approach to loanword phonology receives support from Paradis (1996), LaCharité & Paradis (2005) among others. They assume that

> Borrowings are introduced by bilinguals, who have access to the phonology of the source language (L2), a claim supported by sociolinguistic studies such as Haugen (1950), Mougeon, Beniak & Valois (1985) and Poplack, Sankoff & Miller (1988), among many others. Loanwords are introduced by bilinguals through what sociolinguists call "code-switches", "nonces" and "idiosyncrasies". Phonological patterns of adaptation are also imposed by bilinguals, and are community-wide, especially in mid and high-community bilingualism stages (Paradis 1996:4).

The following examples taken from Dohlus (2005:119) are provided by LaCharité & Paradis (2005) to support the phonological approximation stance.

(6) Examples of phonological approximation

(6a) English voiced stops in Spanish:

A comparison of VOT (Voice Onset Time)[20] indicates that Spanish voiceless sounds overlap with English voiced sounds (both have a VOT of 0-30 msecs). This is underlined by the misperception of English voiced sounds as voiceless by Spanish learners of English. However, English loanwords with voiced stops are not adapted as voiceless in Spanish, but as the phonologically identical category [voiced] (LaCharité & Paradis 2005). Similarly, English /b/ is adapted as /b/ in French despite being acoustically closer to French /p/ (LaCharité & Paradis 2005).

(6b) English high lax vowels in Spanish:

English [ɪ] and [ʊ] are phonetically closest to the Spanish phonemes /e/ and/o/. Despite this phonetic closeness, English [ɪ] and [ʊ] are adapted as /i/ and /u/ in Spanish, because they are phonologically identical to the phoneme category of the English source vowels (LaCharité & Paradis 2005).

[20] « Le Voice Onset Time (V.O.T.) est le temps d'établissement du voisement, mesuré à partir de la barre d'explosion » Meunier (1999 : 4).

(6c) English [θ] in Italian Calabrese:

English [θ] is perceptually closest to Calabrese Italian /f/, but it is adapted as /f/ in only a minority of adaptations (2/64 words). In the majority of cases /t/, is chosen for the representation of English [θ] in Calabrese Italian (62/64 words) (LaCharité & Paradis 2005).

These examples show that despite the existence of a phonetically identical or closer sound, the phonologically identical sound of the borrowing language is chosen. They thus indicate that the adaptations are phonologically driven and that *"phonetic approximation cannot be held responsible for the adaptation"* (LaCharité & Paradis 2005:235). Foreign sounds are adapted as native sounds that preserve the phonological contrast of the source language to the greatest extent possible[21].

1.3.3. The joint perception-phonology approach

The combined approach receives support from authors like Silverman (1992), Hauns (2002), Kenstowicz (2003), Rose & Demuth (2005), Davidson (2007)… According to them, while the phonology of the borrowing language plays a determining role in the adaptation process, perceptual factors must also be taken into consideration. The joint approach proposes that the adaptation involves both the native grammar and the phonetic similarity

[21] See Dohlus (2005:120)

between loan and native segments. Kenstowicz points out that *"there is no evidence that the perception of L1 segments is free from the influence of context and so there is little reason to suppose that contextual influence is suspended in loanword adaptation"* (2003:98). He backs up his view through what he calls *"'perception' grammar and a grammar of 'production'"* as sketched below in (7):

(7)

Perception		*Production*		
[xxx]	→ [UG + L1] →	/yyy/	→ [UG + L1] →	[zzz]
Loan source		Lexical rep.		output

The idea is that the grammar (both L1 and UG aspects) can intervene at the level of perception as well as production in the loanword adaptation process.

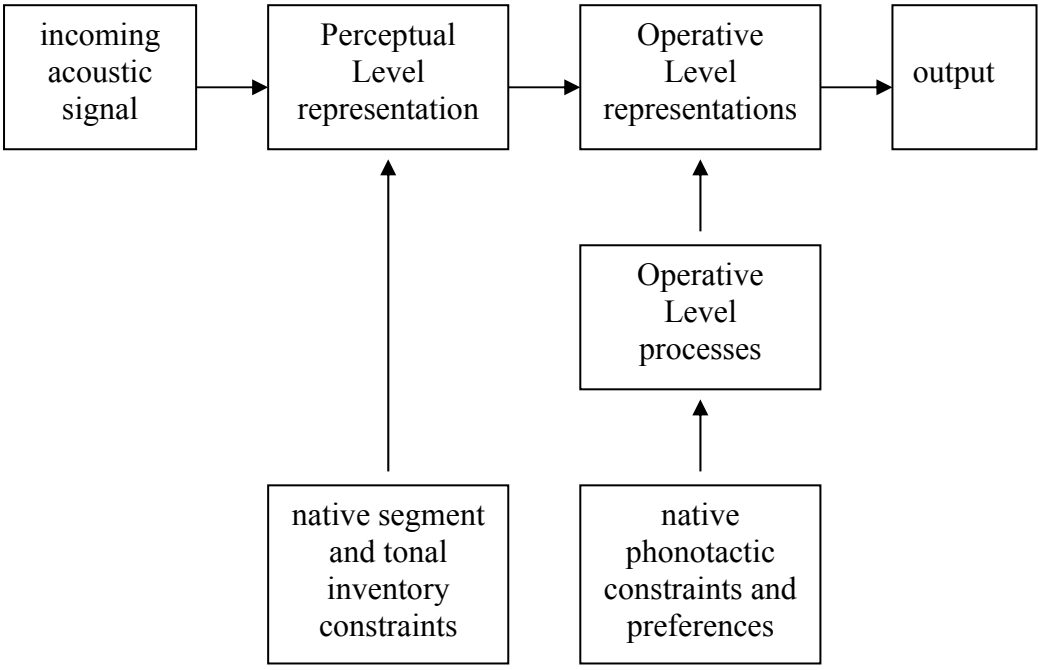
Silverman advocates the joint approach by putting that *"loanwords do not come equipped with their own phonological representation.* […] *A host-language speakers perceive foreign forms in accordance with their indigenous phonological system, they instantiate native phonological representations on the acoustic signal, fitting the superficial input into the native phonological system as closely as possible"* (1992:289). He provides evidence that loanword adaptations go through two levels: the Perceptual Level (or Scansion One) and the Operational Level (or Scansion Two). He defines the two levels as follows in (8):

(8) Perceptual Level: It is concerned solely with providing a preliminary, perceptual based 'raw' representation for the incoming forms. At the Perceptual Level, the acoustic signal is parsed into segment-sized chunks, whose representation is constrained by the segment inventory of the host language and by the Perceptual Uniformity Hypothesis, which states that input perceived as acoustically identical is uniformly provided with the identification feature matrices, regardless of string position.

Operative Level: At this level, native Syllable Structure Constraints (SSCs) hold for the segmental string constituting the output to the Perceptual Level. The segments now undergo the phonological processes of the loanword phonology, so that the resulting representation is in accordance with indigenous constraints on syllable structure.

Silverman (1992:293) summarises the contribution of the Perceptual Level and the Operative Level to the process of loanword adaptations in the following diagram in (9) below.

(9)



He explains that

> the input to the loanword phonology is the acoustic signal. At the Perceptual Level, the native segment and tonal inventories constrain the representation of perceived segments. It is only as the Operative Level of the loanword phonology proceeds that perceived segments may undergo true phonological operations, triggered by native phonotactic constraints. p.293

One example of this is that of the fricative /f/[22]. Both English and Cantonese possess /f/ in their phoneme inventories, but it is only in English that /f/ may surface in both onset and coda positions (Acceptable codas in Cantonese are /p, m, t, n, k, ŋ, w, y/[23]). When fricative /f/ is assigned to onset position in Cantonese, it surfaces intact. However when /f/ surfaces in coda position (at the Perceptual Level), occlusivisation applies (at the

[22] See Silverman (1992:299-300)
[23] See Silverman (1992:294)

Operative Level); the output thus abiding by Cantonese phonotactics. This is shown through the following derivations in (10).

(10)	*input*	shaft	lift
	Perceptual Level	[ʂɐf]	[lif]
	Operative Level	[ʂɐp]	[lip]

Another example of the combined position is presented in Kang (2003), who discusses vowel insertion after word final stops by Korean borrowers of English a case that requires both perceptual and phonological explanations. Vowel insertion is motivated by perceived similarity between the inserted vowel and the acoustic release and voicing distinction in English word-final stops. However, whether or not a vowel is actually inserted competes with a language-specific morphophonemic alternation, indicating that the phonology of the native language also affects the form of the adaptation[24].

After the presentation of the different stances at stake in loanword adaptation phonology, I am going to discuss them so as to give my opinion about each of them.

1.3.4. Discussion

As I said earlier, three positions underlie research on loanword adaptations: perceptual factors, phonological factors, and a combination of

[24] See Davidson (2007:262)

perceptual and phonological factors. Notwithstanding the difference between the three positions, they have an aspect in common: loanwords do not enter the lexicon of the borrowing language by themselves; it is through language users, i.e. borrowers. Davidson (2007) calls them 'disseminators', whereas the large monolingual community to whom the disseminators spread the newly borrowed words are 'recipients'. According to Paradis (1996), borrowers are bilinguals, who have access to the phonology of the source language. The question that immediately comes to mind is: "To what extent can a speaker of two languages be called bilingual?"

Writing on bilingualism Mackey (1976) opines that it is:

> (Une) égale maîtrise de deux langues, et c'est une définition que l'on continue à trouver dans certains glossaires linguistiques, par exemple : « Qualité d'un sujet ou d'une population qui se sert couramment de deux langues, sans aptitude marquée pour l'une plutôt que pour l'autre ». Bloomfield considérait que le bilinguisme consistait à « parler deux langues comme ceux qui les ont pour langue maternelle » (As such the subject must have, as earlier as possible – from six or seven years old, been strongly exposed to a second language. Even though this condition is met, the tendency of supremacy of one language over the other will be remarkable). Cette définition fut élargie par Haugen : « l'aptitude à produire dans l'autre langue, des énoncés bien formés porteurs de signification. » Plus récemment encore, on a proposé une nouvelle extension du concept : le bilinguisme comprenant « la connaissance passive » de la langue écrite, ou « tout contact avec des modèles dans la langue maternelle. »[25]

[25] (An) equal command of two languages, and it is a definition which is still found in some linguistic glossaries, for example: "quality of an individual or a population that fluently use two languages, without a remarkable ability to use one rather than the other." Bloomfield considered that bilingualism stood for "speaking two languages as those who speak them as mother tongue". That definition has been broadened by Haugen: "the ability to produce in the other language, well formed and meaningful utterances." More recently again, a new extension of the concept has been suggested: bilingualism comprising "the passive knowledge" of the written language or "any contact with some models in the mother tongue". (My translation)

The idea is that a bilingual is someone who has access to two languages, the command level of the second/foreign one(s) ranging from *'excellent'* to *'low'*. This means that the possibility for a bilingual to have a low level command of a second/foreign language can't be ruled out. Such a bilingual borrower can fail to know the underlying representation for an L2 form, which in fact is the phonemic representation that constitutes the input to L1. Consequently, loanword adaptation viewed from the phonological perspective can be impaired.

Another aspect worth mentioning is that *"transformations (may) occur in loanwords vis-à-vis the original L2 forms because borrowers are non-native speakers of the L2 who hear the L2 forms unreliably"* Chang (in press). Such a scenario appeals to the perception approach to loanword adaptations.

The perception or the phonology approach can fail in explaining loanword adaptations insofar as

> the information about how loanwords were borrowed into a language is not always complete. That is, it is difficult to know how listeners incorporate perceptual factors, because it is not necessarily the case that words are borrowed from source-language speakers or disseminators. […] Because it is often not known which of these situations is present at any given stage of borrowing, we cannot simply look at the stable forms of loanwords and infer from that how they must have been perceived (Davidson 2007: 262-263).

Taking into account what have been said earlier, I think the combined (perception-phonology) approach is well qualified to explain loanword adaptations. One reason is that of the close relationship existing between phonetics and phonology. As observed by Laver (1994),

> The function of phonology is to relate the phonetic events of speech to grammatical units operating at the morphological, lexical, syntactic and semantic levels of language. Phonology is intimately connected with the phonetic study of speech –indeed it is not reasonable to suggest that neither good phonology nor good phonetics is feasible without the understanding of the other.

The following anecdote in (11) better explains the value of the joint perception-phonology approach to loanword adaptations

(11) A man was about to name his new-born baby girl. So he went to his mother in order to get the baby's African name as his custom requires. Both (the woman and his son) are native speaker of Fon, but the man was educated unlike his mother. After an explanatory speech the old woman released the baby's African name and everybody applauded thunderously. Then she asked about her granddaughter's French name. "Stella ([stɛla] < French)", said the man. He repeated the name twice more. Everybody was waiting to hear how the woman would utter the name. Then she smiled and confessed that her tongue was not so trained to pronounce the name as her son did. "I can say 'sɛla'", she concluded and everybody clapped once more.

What is of interest in this anecdote are:

- The old woman's reaction when she was asked to repeat the name of the child.
- The fate of the initial consonant cluster <st> in the woman's production.

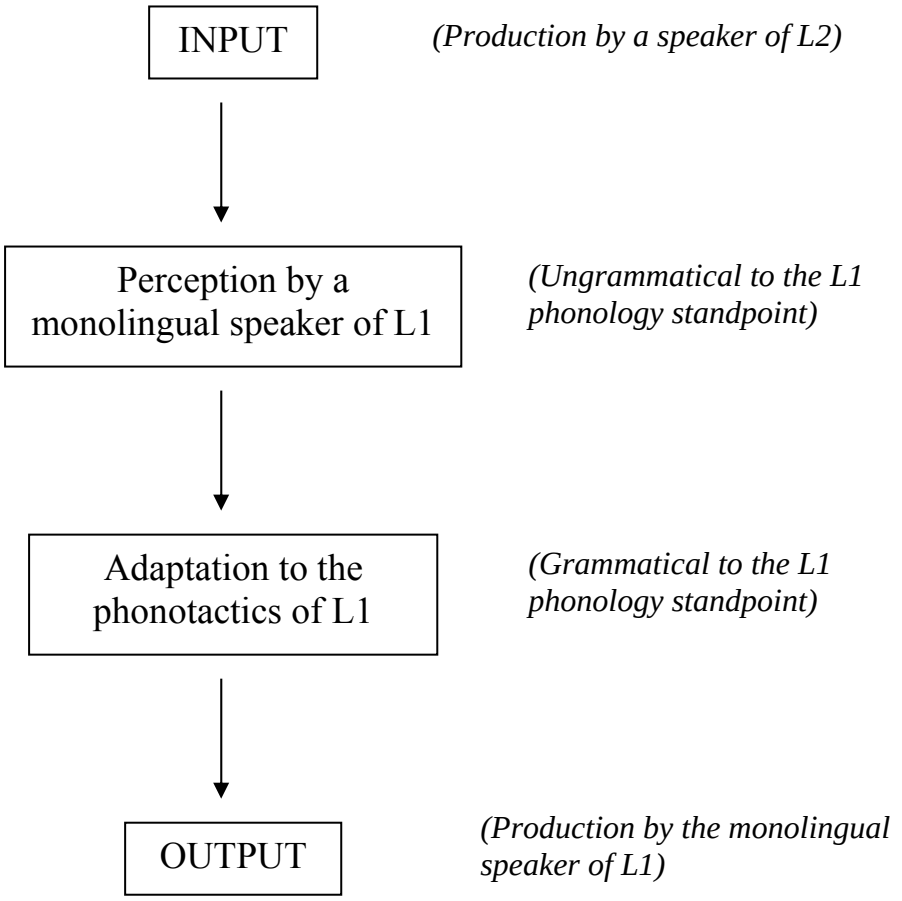
The first point, which stands for the perceptual, level confirms that the woman actually perceived the sound [st] in the input. The second point,

which deals with how [st] is adapted to the phonology of Fon, shows that the cluster is not attested in that language. The fate of the word-initial cluster *st* in "Stella" resembles the one of the same cluster –but in final position, when it is adapted to Fon. "*Lorsque le groupe consonantique st se trouve en position finale, on observe une élision de* [t]"[26] (Gbéto 2000a: 36).

Example: < poste > ['post] < French → [pósù] < Fon

The perception-production approach can be summarised as follows:

(12)



[26] When the consonant cluster *st* occurs in final position, there is a deletion of [t]. (My translation)

The diagram in (12) further shows the importance of the joint perception-phonology approach to loanword adaptations. It can be read like this: the monolingual speaker of L1 perceives the ungrammaticality (ill-form) in the input produced by an L2 speaker. This is adapted to the phonology of L1 and the output produced by the monolingual speaker of L1 is conform to the phonology of L1, and then sounds grammatical to the L1 standpoint.

CHAPTER TWO

SEGMENTAL INVENTORY AND ADAPTED FORMS OF FRENCH PHONEMES TO ENGLISH

This chapter aims at making the inventory of both French and English phonemes, and giving the adapted forms of French phonemes (or phoneme combinations) to English. But before, let's discover the syllable structure and the stress patterns of both languages.

2.1. French and English

2.1.1. Syllable structure

A syllable is a part of word or a word that contains a single vowel sound and that is pronounced as a unit.

English is a CVC language. This means that any English syllable has an optional onset, an obligatory centre (peak or nucleus) and an optional coda. The English language has a *(C)(C)(C) V (C)(C)(C)(C)* maximal template (i.e. the onset can be zero, one, two, or three consonants; the coda can be, zero, one, two, three, or four consonants). This is exemplified as follows in (13).

(13)

PHONEMES SEQUENCES	WORDS	
	TRANSCRIPTIONS	GRAPHEMES
V	/aɪ/	< I >
Initial CV-	/siː/	< sea >
Initial CCV-	/blæk/	< black >
Initial CCCV-	/strɪŋ/	< string >
Final -VC	/bed/	< bed >
Final -VCC	/help/	< help >
Final -VCCC	/nekst/	< next >
Final -VCCCC	/skʌlpts/	< sculpts >

As far as French is concerned, this language is a CV one. This means that it is an open syllable language. Some French words like <rauque> [ʀok] and <paume> [pom] seem to go against the CV structure. But Ostby (2005) argues that "*entre autres Delattre (1966) et Féry (2001) proposent de considérer que la consonne de la coda dans ces exemples ne fait pas partie de la rime de la syllabe, mais qu'elle constitue l'attaque d'une syllabe dégénérée sans noyau vocalique, une semi-syllabe*"[27]. French has a *(C)(C)(C)V* maximal

[27] Delatre (1966) and Fery (2001) among others, suggest to consider that the consonant (in each) of the coda in these examples (<rauque> [ʀok] and <paume> [pom]) does not belong to the rhyme of the syllable, but stand for the opening of a degenerate syllable having no nucleus, a semi-syllable. (My translation)

syllable template (i.e. it has zero coda. Its onset can be zero, one, two, or three consonants). These are some examples in (14):

(14)

PHONEMES SEQUENCES	WORDS	
	TRANSCRIPTIONS	GRAPHEMES
V	/a/	< à >
CV-	/dɑ̃/	< dent >
CCV-	/kle/	< clé >
CCCV-	/stʀɔf/	< strophe >

2.1.2. Stress patterns

Unlike French, which has its word stress always on the last pronounced syllable, English word stress is not on the same syllable. It can be on the first, for example in <father>[ˈfɑː.ðə][28]; on the second, for example in <about>[əˈbaʊt]; on the antepenultimate syllable, for example in <activity>[ækˈtɪv.ə.tɪ]; on the penultimate[29] syllable, for example in <arteriosclerosis>[ɑː.tɪə.rɪ.əʊ.sklə'rəʊ.sɪs]; or on the last syllable, for example in <shampoo>[ʃæmˈpuː].

[28] A stressed syllable is marked in transcription by placing a small line [ˈ] high up, just before the syllable it relates to.

[29] Antepenultimate and penultimate syllables are respectively the second and the first syllable before the last.

Syllables are built with sound segments. In the following step, I am going to make an inventory of both French and English phonemes.

2.2. Segmental inventory

2.2.1. Consonant inventory

2.2.1.1. French consonants

French has twenty consonant phonemes organised as follows in (15):

(15)

	Bilabial	Labiodental	Apical	Sibilant	Chuintant	Palatal	Vélaire
Orales sourdes	p	f	t	s	ʃ		k
Orales sonores	b	v	d	z	ʒ		g
Nasales	m		n			ɲ	
Approximent	w/ɥ		l			j	ʀ

Table 3: Consonantal phonemes of French[30]

2.2.1.2. English consonants

English has twenty-four consonant phonemes summarised in the table below in (16):

[30] Adapted from André Martinet's *"Tableau phonologique des consonnes du Français"*, available online at http://pagesperso-orange.fr/andre.thibau/phonologie.semaine5tableaux.pdf.

(16)

	Bilabial	Labio-dental	Dental	Alveolar	Sibilant	Hushing	Palato-alveolar	Velar	Glottal
Oral voiceless	p	f	θ	t	s	ʃ	ʧ	k	h
Oral voiced	b	v	ð	d	z	ʒ	ʤ	g	
Nasal	m			n				ŋ	
Approximent	w			l/r			j		

Table 4: Consonantal phonemes of English

Note: I got in Roach (1991: 62) a "*Chart of English consonant phonemes*"[31], but the table was purely organised according to phonetic criteria; more precisely according to articulatory phonetics criteria. So I reorganised the table myself (following the French chart in (15) designed by Martinet) to get the table in (16).

2.2.1.3. Distinction between French and English consonants

Given both French and English consonant phonemes inventory, most consonant sounds of the French language can be found in English. However, there are some mismatches. A comparison of the French and the English consonant tables makes it possible to notice that:

- /t/, /d/, and /n/ are dental consonants in French, whereas they are alveolar in English. This remark has been attested by Dart (1998: 93) –quoted

[31] See Appendix C.

by Gbéto 2000a– who, basing on an experiment with some French and American participants, found that "*French* /t/, /d/, *and* /n/ *were shown to be mostly dental and mostly apico-laminal, while the corresponding English segments were mostly alveolar and apical*"[32].

- The French /ɲ/ and /ɥ/ do not occur in English.

- The French /ʁ/ resembles the English /r/; but /ʁ/ is a velar, whereas /r/ is an alveolar. Gbéto asserts that *"…le* [r] *portugais et le* [r] *anglais se comportent comme le* R *dorsale français. Cette similitude dans le comportement s'explique par le fait que le* R *français et le* [r] *anglais sont tous les deux accompagnés d'une constriction pharyngale d'après les études cinéradiographiques"*[33] (2000a: 31).

- /θ/, /ð/, /ʧ/, and /ʤ/ belong to the English consonantal system but not to the French one.

2.2.2. Vowel inventory

2.2.2.1. French vowels

French has both oral and nasal vowels. French oral and nasal vowels are listed in the table in (17):

[32] See Gbéto 2000a: 38

[33] … the Portuguese /r/ and the English /r/ function more like the dorsal French (consonant) R. That functional similarity can be explained by the fact that the French R and the English /r/ are both followed by a pharyngeal obstruction, according to (the results of) cineradiographic studies. (My translation)

(17)

	Front		Back
	Unrounded	*Rounded*	
Close	i	y	u
Half-close	e	ø	o
Half-open	ɛ/ɛ̃	œ/œ̃	ɔ/ɔ̃
Open	a		ɑ/ɑ̃

Table 5: Vocalic phonemes of French

Note: This table is adapted from Martinet's *Tableau des voyelles du français*. But in Martinet's table, the opposition orals ~ nasals was not mentioned. So I did it myself. The schwa i.e. /ə/ is not mentioned in this table.

2.2.2.2. English vowels

English has monophthongs, diphthongs, and triphthongs. English monophthongs are listed in the following table:

(18)

	FRONT	CENTRAL	BACK	
	Unrounded	*Unrounded*	*Unrounded*	*Rounded*
Close	iː			uː
Half-close	ɪ	ə		ʊ
Half-open	e	ɜː		ɔː
Open	æ	ʌ	ɑː	ɒ

Table 6: Vocalic phonemes of English[34]

English has eight diphthongs and five triphthongs:

[34] Adapted from 'BBC English pure vowels' in Jones (2006: viii)

(19) English diphthongs:

- Centring diphthongs (ending in ə): /ɪə/, /eə/, and /ʊə/;
- Closing diphthongs (ending in ɪ): /eɪ/, /aɪ/, and/ɔɪ/;
- Closing diphthongs (ending in ʊ): /əʊ/, and /aʊ/.

(20) English triphthongs: /eɪə/, /aɪə/, /ɔɪə/, /əʊə/, and /aʊə/.

2.2.2.3. Distinction between French and English vowels

French nasal vowels (/œ̃/, /ɜ̃/, /ɔ̃/, /ɑ̃/) and front rounded vowels (/œ/, /ø/, /y/) don't exist in the English vocalic system.

The French language has no English /ʊ/, /ɒ/, /ʌ/, /ɜː/, diphthongs and triphthongs.

This inventory has made it possible to identify the phonemes of both SL and TL, and more importantly, the phonemes of the donor language which don't exist in the borrowing language. The last part of this chapter is about how French phonemes are adapted to English.

2.3. Adapted forms of French phonemes to English

After the inventory of French and English phonemes, let's see what happens to the loanword phonemes once they are adapted to the system of the

target language. In the following tables, I consider French phonemes and sort out their English adaptations. For this purpose, I compared some French loanwords found in a French dictionary (*Dictionnaire Universel* 4eme ed.), to their English adapted forms found in English dictionaries (*HARRAP'S* 5th ed. and *English Pronouncing Dictionary* 17th ed.). This made it possible to identify the adapted forms of French consonants and vowels to the English sound system.

2.3.1. Consonants adaptation

In the following table, there are French phonemes and their corresponding English adaptations. As I said earlier, this is based only on what I saw in dictionaries.

(21)

French consonant	English adaptation	Example	Transcription	
			French	English
/p/	/p/	Pourboire Pourparler	/puʀbwaʀ/ /puʀpaʀle/	/ˈpʊəbwɑː/ /pʊəˈpɑːleɪ/
/b/	/b/	Ballet	/balɛ/	/ˈbæleɪ/
/t/	/t/	Torture	/tɔʀtyʀ/	/ˈtɔːtʃə/
/d/	/d/	Dossier	/dosje/	/ˈdɒsɪeɪ/
/k/	/k/	Café Appliqué	/kafe/ /aplike/	/ˈkæfeɪ/ /əˈpliːkeɪ/
/g/	/g/	Garage	/gaʀaʒ/	/ˈgærɪdʒ/

/f/	/f/	Fils	/fis/	/fiːs/
/v/	/v/	Vis-à-vis	/vizavi/	/viːzaː'viː/
/s/	/s/	Sabotage	/sabɔtaʒ/	/'sæbətaːdʒ/
/z/	/z/	Poseur Zink	/pozœʀ/ /zɛ̃g/	/pəʊ'zɜː/ /zɪŋk/
/ʃ/	/ʃ/	Touché	/tuʃe/	/'tuːʃeɪ/
	/ʧ/	Chant	/ʃã/	/ʧaːnt/
/ʒ/	/ʒ/	Cortège	/kɔʀtɛʒ/	/kɔːt'eɪʒ/
	/ʤ/	Justin	/ʒystɛ̃/	/'ʤʌstɪn/
/ʀ/	/r/ /–(r)/[35]	Rage Air	/ʀaʒ/ /ɛʀ/	/reɪʤ/ /eə(r)/
/m/	/m/	Macramé	/makʀame/	/mə'kraːmeɪ/
/n/	/n/	Naïf	/naif/	/naɪ'iːf/
/ɲ/	/n/	Peignoir Champagne	/pɛɲwaʀ/ /ʃãpaɲ/	/'peɪnwaː/ /ʃæm'peɪn/
	/nj/	Chignon	/ʃiɲɔ̃/	/'ʃiːnjɒn/
/w/	/w/	Reservoir	/ʀezɛʀvwa/	/'rezəvwaː/
/ɥ/	/w/	Ennui	/ãnɥi/	/'ɒnwiː/
/j/	/j/	Adieu	/adjø/	/ə'djuː/
	Gliding vowels[36]	Crayon	/kʀɛjɔ̃/	/'kreɪ.ɒn/

[35] An [r] sound at the end of a word (or final 'r') is not pronounced in British English unless it is used to link two words (the next starting by a vowel sound). This is called "linking 'r'".

Example: <far away>[faːr əweɪ]

		Ambiance Doyen layette	/ãbjãs/ /dwajɛ̃/ /lɛjɛt/	/'æmbɪ.ənz/ /'dɔɪ.ən/ /leɪ'et/
/l/	/l/	Layette	/lɛjɛt/	/leɪ'et/

Table 7: The English adaptation of twenty French consonants in integrated loanwords

2.3.2. Vowels adaptation

In the table below, we can see the adapted forms of French vowels to the vocalic system of English.

It is worth mentioning that English does not allow phonologic nasal vowels; a nasal vowel systematically yields a VN (Vowel + Nasal consonant) sequence when adapted to English: Ṽ→ VN[37]

(22)

French vowel	**English adaptation**	**Example**	**Phonemic transcription**	
			French	**English**
/i/	/iː/	Technique	/tɛknik/	/tek'niːk/
	/ə/	Aperitif	/apeʀitif/	/əperə'tiːf/
/e/	/eɪ/	Bouaké Etude	/bwake/ /etyd/	/'bwɑːkeɪ/ /'eɪtjuːd/

[36] The consonant sound /j/is a quick glide from the position of the vowel /iː/ or /ɪ/ to any other vowel. We usually transcribe the word "yes" as /jes/, but we might easily transcribe it /iːes/ or /ɪes/, on the understanding that the /iː/ or /ɪ/ is very short and that we move smoothly and quickly to the following/e/. (See O'Connor 1967:74)

[37] See Čubrović (2002:3), and Kenstowicz (2003:107).

/ɛ/	/e/	Arête	/aʀɛt/	/ær'et/
	/eɪ/	Peignoir	/pɛɲwaʀ/	/'peɪnwaː/
	/ɪ/	Escargot	/ɛskaʀgo/	/ɪ'skaːgəʊ/
/a/	/æ/	Savant	/savɑ̃/	/'sævənt/
	/ə/	Attaché	/ataʃe/	/ə'tæʃeɪ/
/y/	/juː/	Apercu Unique	/apɛʀsy/ /ynik/	/æpɜː'sjuː/ /juː'niːk/
	/uː/	Bruno	/bʀyno/	/'bruːnəʊ/
/ø/	/ɜː/	Chanteuse	/ʃɑ̃tøz/	/ʃaːntɜːz/
	/uː/	Lieu	/ljø/	/ljuː/ or /luː/
	/juː/	Queue	/kø/	/kjuː/
/œ/	/ɜː/	Hauteur	/otœʀ/	/əʊ'tɜː(r)/
/ə/	/e/	Demimonde	/dəmimɔ̃d/	/demɪ'mɔːnd/
/ɑ/	/æ/	Baton	/bɑtɔ̃/	/'bætɒn/
	/ɑː/	Sang-froid	/sɑ̃fʀwɑ/	/sæŋ'frwɑː/
/u/	/uː/	Coup(s) d'état	/kudeta/	/kuːdeɪ'taː/

/o/	/əʊ/	A gogo	/agogo/	/ə'gəʊgəʊ/
/ɔ/	/ɒ/	Coquette	/kɔkɛt/	/kɒk'et/
/ɑ̃/	/ən/	Savant	/savɑ̃/	/'sævənt/
	/ɑːn/	Chant Entente Fiancé	/ʃɑ̃/ /ɑ̃tɑ̃t/ /fiɑ̃se/	/ʧɑːnt/ /ɑːn'tɑːnt/ /fɪ'ɑːnseɪ/
	/æn/	Flambeau	[flɑ̃bo]	['flæmbəʊ]
	/ɒn/	Encore	[ɑ̃kɔʀ]	['ɒŋkɔː(r)]
	/æn/	Gland	/glɑ̃d/	/glænd/
	/eɪn/	Ancient	/ɑ̃sjɛ̃/	/'eɪnʃənt/
	/ɑ̃ːn/	Au courant Élan	[okuʀɑ̃] [elɑ̃]	[əʊ'kʊrɑ̃ːŋ] [eɪ'lɑ̃ːŋ]
	/ɑ̃ːn/	Genre	/ʒɑ̃ʀ/	/'ʒɑ̃ːnrə/
	/æn/	Commandant	/kɔmɑ̃dɑ̃/	/'kɒmændænt/
	/ɒn/	Entente Fiancé	/ɑ̃tɑ̃t/ /fiɑ̃se/	/ɒn'tɒnt/ /fɪ'ɒnseɪ/
	/ɔ̃ː(n)/	Mélange	/melɑ̃ʒ/	/meɪ'lɔ̃ː(n)ʒ/

/ɛ̃/	/ɪn/	Chagrin	/ʃagʀɛ̃/	/'ʃægrɪn/
		Impasse	[ɛ̃pas]	[ɪmpæs]
	/ən/	Ancient	/ãsjɛ̃/	/'eɪnʃənt/
	/æn/	Ingénue	/ɛ̃ʒeny/	/'ænʒeɪnjuː/
/ɔ̃/	/ɔːn/	Conge	/kɔ̃ʒe/	/'kɔːnʒeɪ/
	/ɔːŋ/	Bon vivant	/bɔ̃vivã/	/bɔ̃ːŋvɪ'vaːŋ/
	/ɒn/	Montage	/mɔ̃taʒ/	/mɒn'taːʒ/
		Trompe l'oeil	[tʀɔ̃plœj]	[trɒmp'lɔɪ]
/œ̃/	/ɜːn/	Chacun a son goût	/ʃakœ̃asɔ̃gu/	/ʃækɜːnæsɒŋ'guː/

Table 8: The English adaptation of sixteen French vowels in integrated loanwords

The consonants and vowels adaptation tables above are just for guidance purpose. Phonemes (in loanwords) must be considered not in isolation but in relation to neighbouring phonemes. An example of this is that of the phoneme /ã/ in <encore>/ãkɔʀ/ (French). The basic adaptation of the French /ã/ could be /ɒn/, which can be realised as [ɒn], [ɒm], or [ɒŋ]. But [ɒŋ] is singled out from the three realisations of /ɒn/ in the English adaptation of <encore>[ɒŋ'kɔː] because of the presence of the voiceless velar

and plosive consonant [k] in the environment. The feature “velar” of [k] affects [n] in /ɒn/ through the process of regressive assimilation, and it becomes [ŋ]. Then we got [ɒŋ'kɔː] instead of *[ɒn'kɔː] or *[ɒm'kɔː].

CHAPTER THREE

RESEARCH METHODOLOGY

We have just seen the adapted forms of French phonemes to the sound system of English. Now, I am going to deal with how Benin EFL students consider loanwords and the difficulties facing them in the appropriation and use of this category of words.

This chapter is divided into two main parts. The first one is an investigation by interviews designed to probe into Benin EFL students' behaviour towards French loanwords in English. The second part is an experiment I carried out in order to test students' reactions as far as adapting French loanwords to the sound system of English is concerned.

3.1. Investigation by interview

The first step in the process of appropriation and use of new words or a category of words is being aware of their existence in the lexicon of the language under study. This investigation aims at giving insights into Benin EFL students' awareness regarding French loanwords in English. To begin with, we need to discover who exactly Benin EFL students are.

3.1.1. The population

Benin EFL students are Benin citizens who have been learning English at school, universities or any other qualified institutions or centres. In the great majority of cases, they learn English in secondary education for seven years at least through listening, speaking, reading and writing as well. But the setting doesn't make it possible to have a good command of the language (especially the speaking). English is a foreign language in Benin. French is the official language (spoken at school, universities, and in the administration); and the country has at least fifty (50) first languages, which are used by both educated and non-educated people.

Benin EFL students in question in this study are those who have been learning English for four years in the Abomey-Calavi University's Section of English. These students have Phonetics and Phonology as one subject among many others. As a matter of fact, first-year students are taught the different parts of the vocal apparatus and how they contribute to the production, the description and the classification of English consonant and vowel sounds. As to second-year students, their training focuses upon how sounds combine to form a syllable (word or part of word containing a vowel sound), stress patterns of English, English rhythm and intonation. As far as third-year students' training is concerned, it deals with phonemic and phonetic transcriptions (with emphasis upon diacritical marks), other suprasegmental phonetics aspects such as linking, assimilation, deletion, insertion etc. and

phonological rules. These points are further developed for students who have chosen Linguistics as their field of specialisation. Fourth-year students are about to complete their studies through a Maîtrise dissertation.

Judging the Phonetics-Phonology curriculum, it seems obvious that Benin EFL students at the Abomey-Calavi University are well equipped to face constraints imposed by the adaptation of French loanwords to the phonology of English.

After describing the population for my study, I would now like to deal with the investigation material.

3.1.2. Instrumentation

Two fundamental tools are generally recommended to gather information from a population: the questionnaire and the interview. The choice of the second is motivated by the fact that the technique of interview involves the interviewee and makes cross-questioning possible.

The discussion with participants is organised around various questions (see Appendix A).

3.1.3. Procedure

Interviewees were invited in groups of two to five according to the availability of each of them. In total, one hundred and twenty (120) students from the second to the fourth year of the English section of both Abomey-Calavi and Porto-Novo campuses were interviewed. The interview took place

in August 2009 according to schedule. The students were in holidays; but since they had been informed in advance, it was easy to meet them. They also knew that they would take part in an interview in the framework of a research work I was carrying out. But I revealed neither the topic, nor the principal subject of discussion, i.e. loanwords. After a broad discussion about what can result from language contact, I had a tête-à-tête with each participant. The discussion revolved around French loanwords in English; what he/she knew about them, what use is made of them, what probably impairs his/her use of loanwords considering his/her status of French speaker learning English… Each of the 120 participants was exposed to five questions, put one after another.

The first question was to make participants list (within 5 minutes) French loanwords they knew.

The second question aimed at detecting whether participants were reluctant in loanwords usage or not. Each pair of sentences opposed a French loanword or a word of French origin to a pure English word or a word of Anglo-Saxon origin (*bonbons/sweets; boutique/shop; commenced/began; combat/fight; freedom/liberty*).

The third question was to test whether Benin EFL students succeed in adapting French loanwords according to the sound system and the phonotactics of English. The words were chosen on purpose and ranked from

the most integrated to the less one (*garage* > *envelope* > *voyage* > *cliché* > *bric-à-brac*).

Question number four was actually to make participants justify why they are reluctant to use loanwords.

The last question was an open debate designed to identify participants' needs in phonetics and phonology so as to better cope with loanwords.

3.2. Experiment

In order to identify Benin EFL students' difficulties in adapting French loanwords to the phonology of English, I carried out an experiment. This involved not the population as a whole but a selected group with some particularities.

3.2.1. Sampling

Sixty (60) Benin EFL students of Abomey-Calavi University (Porto-Novo and Abomey-Calavi campuses) participated in the experiment. They were third-year students in the English section at the time of testing (August 2009). All participants had started to learn English in secondary schools (7 years at least), and have Linguistics as field of specialisation.

3.2.2. Experimentation material

Twenty (20) loanwords were selected and divided up in four groups of five words each. Some words were fully or partly transcribed (phonemic transcription). In fact, words of the first group were transcribed with omission of vowels, and those of the second group with omission of consonants. Words of group N°3 were not transcribed but the number of phonemes in each word could be identified by a corresponding number of empty boxes. As to the words of the last group, they were fully transcribed and syllabified. Carrier sentences were provided under each word so as to raise participants' awareness of the fact that the loanwords must be considered as actual English words.

Both French and English consonant and vowel phonemes were made available. Each phoneme was illustrated by an example (Appendix B).

3.2.3. Procedure

Participants were reminded that English has a number of words borrowed from French such as *montage*, *voyage*, *foyer*… They were told that *"when borrowed by a language, words of foreign origin mostly do not preserve their original shape but get adapted to the sound system of the borrowing language* (Vendelin and Peperkamp 2004:1). I then supplied them with the list of consonant and vowel phonemes of French and English, and

some examples of loanwords adaptation. Together, we discussed about French and English phonology before we dealt with data collection.

3.2.3.1. Source of data

For the purpose of the present work, I am only interested in phoneme realisation (segmental level) and stress placement (suprasegmental level).

French and English don't have the same sound system. An example of this is that French uses nasal vowels not found in English. My interest in phoneme realisation is to test Benin EFL students' ability to adapt French loanwords to the English consonantal and vocalic systems.

As far as stress placement is concerned, the last syllable carries the primary stress in French, whereas the syllable where it falls in English is not fixed. Moreover, stress misplacement can cause nuisance to communication. The test on stress placement is to fathom out Benin EFL students' ability to identify the syllable that carries the primary stress in any word borrowed from French.

3.2.3.2. Method of data collection

After the preliminaries, participants were told that their task would be to adapt some words borrowed from French to the English[38] consonantal and

[38] The selected words already belong to the English lexicon.

vocalic systems. All participants performed the task with a written input[39], divided into two items (see appendix B).

In Item I, participants were asked to complete some phonemic transcriptions with vowel phonemes, next with consonants, and finally to supply the phonemic transcription of some words. They had to comply with the number of boxes available. They were asked to pay attention to carrier sentences and pronounce the words as if they were talking to a native speaker of English who had no contact with the French language.

In Item II, participants were asked to identify the syllable that must carry the primary stress in each transcribed and syllabified word. Two training trials were presented at the beginning of each part of the experiment.

At the end of the test, each participant was asked (in private) to read his/her transcriptions. This was to be sure that the symbols they used were in accordance with their pronunciation.

[39] A better way to test loanwords adaptation might be to use an oral input. This would make the experiment more vivid, as words are mainly borrowed in their oral form rather than the written one. But using oral input requires that I should be trained in acoustic phonetics, and have additional material (an un-echoic studio, speech analysis tools- a computer with a speech analysis software, a microphone) that I couldn't afford at the time of testing.

CHAPTER FOUR

PRESENTATION, ANALYSIS AND INTERPRETATION OF THE RESULTS

In this chapter, the results of the interview and the experiment will be disclosed in the first part. In the second one, the findings are going to be analysed and interpreted. Finally, the major conclusions are drawn followed by the implications and recommendations they entail.

4.1. Presentation of the results

The results of the experiment follow those of the interview, and are presented in two different tables below.

4.1.1. Presentation of the results of the interview

Participants' answers and reactions to questions one, two, three, and four are given in the table in (23)

(23)

Questions	Answers	Students	%
I- How many English words do you know that come from the French language? Take five minutes to list some of them.	1 to 5 words	12	10
	6 to 10 words	20	16.66
	11 to 15 words	44	36.66
	16 to 20 words	37	30.83
	21 words and more	7	05.83

II- Choosing among pairs of sentences the ones preferred if in the context.	- sentences containing French loanwords or words of French origin	04	03.33
	- sentences containing pure English words or words of Anglo-Saxon origin	116	96.67
III- How do you pronounce these English words?	Garage ⇒ /'gærɑːdʒ/ or /'gærɪdʒ/	117	97.50
	Envelope ⇒ /'envələʊp/	95	79.16
	Voyage ⇒ /'vɔɪɪdʒ/	57	47.50
	Cliché ⇒ /'kliːʃeɪ/	68	56.66
	Bric-à-brac⇒ /'brɪkəbræk/	23	19.16
IV- Do you use English words that come from the French language in your conversations?	- Yes	03	02.50
	- No	117	97.50

Table 9: The results of the investigation by interview

The three students who said they use loanwords in conversation (Question IV) provided some examples, even though they mispronounced some of them. But the others (the 117 ones) unanimously said that using French loanwords was a proof of lexical deficiency, which could be seen as incapacity to hold an English conversation. In other words, they asserted that using loanwords means that they do not have a good command of the English language.

Concerning the last question, the great majority of participants think that they can draw much from phonetics and phonology to solve their problems of mispronunciation in general and that of loanwords in particular. They put an emphasis on the necessity to be familiar with English phonotactics, which knowledge can make it possible not to make sounds that are disallowed in English.

4.1.2. Presentation of the results of the experiment

The results of the experiment are displayed in the table in (24). Words are transcribed and/or syllabified; phonemes and syllables at stake are enclosed in a " □ ". Both participants' correct and incorrect adaptations and stress placements are mentioned in the table.

(24)

N°	Words	Correct answers	Students	%	Incorrect adaptations or stress misplacements	Students	%
Vowel adaptation							
Item I (A)	1) tête-à-tête	/teɪtɑːteɪt/ or /tetətet/	29	48.33	*/tɜːtætɜːt/	03	05.00
					*/tetætet/	13	21.66
					*/tɪtɑːtɪt/	02	03.33
					*/tetøtet/	02	03.33
					*/tətətet/	03	05.00
					*/tətætət/	05	08.33
					*/tetɐɪtet/	03	05.00
	2) rapport	/ræpɔː/ or /rəpɔː/	38	63.33	*/reɪpɔː/	03	05.00
					*/rʌpə/	01	01.66
					*/rɑːpɔː/	06	10.00

					*/repɔː/	02	03.33
					*/ræpø/	06	10.00
					*/røpɔː/	02	03.33
					*/ræpə/	02	03.33
	3) cuisine	/kwɪziːn/ or /kwəziːn/	13	21.66	*/kwɪzɪn/	18	30.00
					*/kwiːzɪn/	06	10.00
					*/kwɪzən/	09	15.00
					*/kwʊziːn/	09	15.00
					*/kwəzɪn/	02	03.33
					*/kwɪzaɪn/	01	01.66
					*/kwɔːzɪn/	02	03.33
	4) compère	/kɒmpeə /	12	20.00	*/kɒmpə/	07	11.66
					*/kʌmpɜː/	14	23.33
					*/kɔːmpə/	07	11.66
					*/kɒmpe/	08	13.33
					*/kəmpɪə/	02	03.33
					*/kəmpə/	03	05.00
					*/kəmpe/	02	03.33
					*/kəmpeə/	01	01.66
					*/kæmpɜː/	04	06.66
	5) baton	/bætɒn/ or /bætən/	33	55.00	*/betən/	03	05.00
					*/beɪtɒn/	03	05.00
					*/bʌtən/	05	08.33
					*/bætəʊn/	01	01.66
					*/beɪtən/	05	08.33
					*/bɑːtɒn/	04	06.66
					*/bɒtən/	01	01.66
					*/bætɔːn/	02	03.33
					*/batɔːn/	03	05.00
Consonant adaptation							
Item I (B)	1) garage	/gærɪdʒ/	48	80.00	*/gærɪʒ/	08	13.33
					*/gærɪdj/	01	01.66
					*/gæʀɪʒ/	03	05.00
	2) bête-noire	/bet n wɑː/	50	83.33	*/betnjɑː/	01	01.66

					*/betnʊɑː/	06	10.00
					*/betnɔɪɑː/	03	05.00
	3) chignon	/ʃiːn jɒn/ or /ʃiːn jɒŋ/	00	00.00	*/ʧiːg nɒn/	18	30.00
					*/ʃiːj ŋɒn/	01	01.66
					*/ʃiːk ŋɒn/	03	05.00
					*/ʃiːŋ jɒn/	02	03.33
					*/ʃiːg nɒn/	10	16.66
					*/ʃiːw jɒŋ/	05	08.33
					*/ʃiːj nɒn/	07	11.66
					No answer	14	23.33
	4) manicure	/mænɪk jʊə/	24	40.00	*/mænɪk wʊə/	31	51.66
					*/mænɪk əʊə/	05	08.33
	5) conjugal	/kɒn dʒʊgəl /	33	55.00	*/kɒnjʊgəl/	11	18.33
					*/kɒnʒʊgəl/	12	20.00
					*/kɒŋdʒʊgəl/	04	06.66
Vowel and consonant adaptation							
Item I (C)	1) coincidence	/kəʊɪnsɪdəns/	02	03.33	*/kwɔɪnsiːdəns/	20	33.33
					*/kwɔɪnsiːdens/	08	13.33
					*/kɔɪnsiːdəns/	11	18.33
					*/kəʊiːsɪdens/	13	21.66
					*/kəɪnsɪdens/	06	10.00
	2) portmanteau	/pɔːtmæntəʊ/	26	43.33	*/pɔːtməntə/	13	21.66
					*/pɔːtmɒntəʊ/	06	10.00
					*/pɔːtmæntə/	10	16.66
					*/pɒtməntəʊ/	05	08.33
	3) laissez-faire	/leɪseɪfeə/	18	30	*/lesəfeə/	17	28.33
					*/lesɪfə/	09	15.00
					*/leseɪfeə/	15	25.00
					*/leseəfə/	01	01.66
	4) sang-froid	/sænfrwɑː/	14	23.33	*/sænfrɔɪ/	12	20.00
					*/sænfrʊə/	21	35.00

					*/sənfrwɔ/	07	11.66
					*/sæŋfrwaː/	06	10.00
	5) millionaire	/mɪljəneə/	12	20	*/mɪljɒnə/	04	06.66
					*/mɪlɪənə/	33	55.00
					*/mɪlɒniːə/	02	03.33
					*/miːlɪɒneə/	09	15.00
Stress placement							
Item II	1) contretemps	/kɒnt.rə.taːŋ/	44	73.33	/kɒnt.rə.taːŋ/	04	06.66
					/kɒnt.rə.taːŋ/	12	20.00
	2) vinaigrette	/vɪn.ɪ.gret /	22	36.66	/vɪn.ɪ.gret /	24	40.00
					/vɪn.ɪ.gret /	14	23.33
	3) sobriquet	/səʊ.brɪ.keɪ/	32	53.33	/səʊ.brɪ.keɪ/	18	30.00
					/səʊ.brɪ.keɪ/	10	16.67
	4) chargé d'affaires	/ʃaː.ʒeɪ.də.feə/	06	10	/ʃaː.ʒeɪ.də.feə/	04	06.66
					/ʃaː.ʒeɪ.də.feə/	18	30.00
					/ʃaː.ʒeɪ.də.feə/	32	53.33
	5) cordon sanitaire	/kɔː.dɒn.sæn. ɪ. teə /	08	13.33	/kɔː.dɒn.sæn. ɪ.teə /	08	13.33
					/kɔː.dɒn.sæn. ɪ. teə /	02	03.33
					/kɔː.dɒn.sæn. ɪ. teə /	38	63.33
					/kɔː.dɒn.sæn. ɪ. teə /	04	06.66

Table 10: Summary of the results of the experiment

4.2. Analysis and interpretation of the results

4.2.1. Analysis and interpretation of the result of the interview

4.2.1.1. Analysis

When the 120 interviewed participants were asked to list the French loanwords they knew, all of them provided a list, ranging from one to more

than 21 words. None of them went beyond 30 words or gave an empty paper. But the great majority found an average of 16 words.

When it came to choosing between sentences containing French loanwords or words of French origin and pure English words or words of Anglo-Saxon origin, they gave preference to the latter (96.66 %) over the former (3.33 %).

As far as their ability to cope with loanwords adaptation is concerned, *garage* was correctly adjusted by 97.50 % of participants; *envelope* received 79.16% correct answers; *voyage*: 47.50 %; *cliché*: 56.66 %, and *bric-à-brac* is correctly adjusted by 19.16% of participants.

Only 2.50 % of the interviewees use loanwords, whereas the great majority (97.50 %) doesn't use such category of English words.

4.2.1.2. Interpretation

In the light of these results, everything seems clear that Benin EFL learners are actually aware of the existence of some French words in the English language lexicon, but they are reluctant to use them. This is shown through the rate of the interviewed population who has chosen sentences containing French loanwords or words of French origin (only 3.33 %), against the one of those who decided on sentences containing pure English words or words of Anglo-Saxon origin (96.67 %).

An important finding from this investigation is that participants' ability to adapt French loanwords decreases with the level of integration of loanwords as shown in Table 9 (Question III) and illustrated by Figure 1 below:

(25)

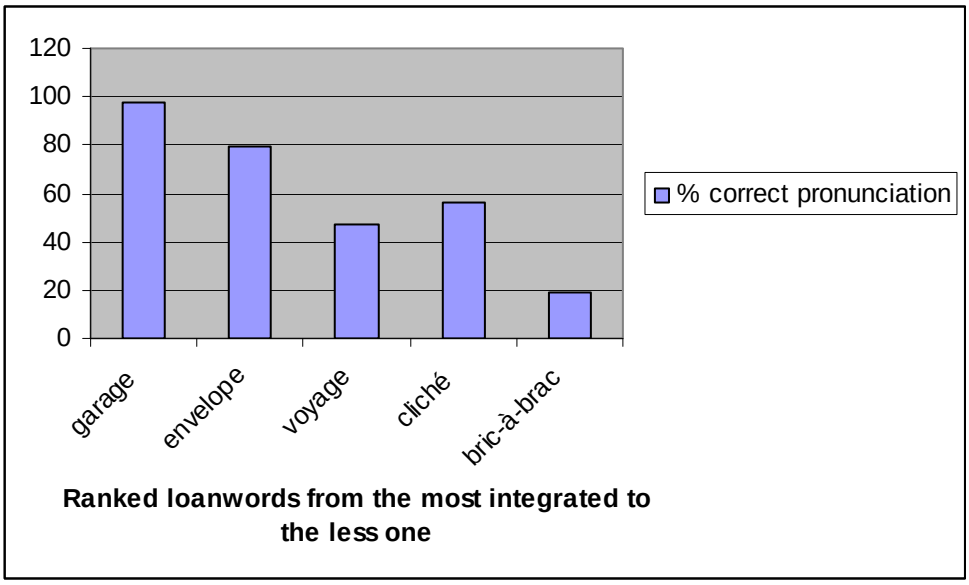


Figure 1: Interviewees' performance in French loanwords adaptation

(25) shows that Benin EFL learners can easily find a way out in dealing with integrated loanwords like *garage* or *envelope* rather than less or non integrated ones such as *voyage*, *cliché*, or *bric-à-brac*. Adaptation difficulties they face with words like *voyage*, *cliché*, or *bric-à-brac* could explain and/or justify the reluctance on their part to use French loanwords in English conversations.

4.2.2. Analysis and interpretation of the results of the experiment

The analysis and interpretation of the results concerning this part of the study will separately take into account the segmental and the suprasegmental aspects of the experiment.

4.2.2.1. Analysis

4.2.2.1.1. Segmental data: Vowels and consonants adaptation

Five words were taken into account in vowel and consonant adaptations respectively.

The following words were involved in the experiment at the vowel adaptation level: *tête-à-tête*, *rapport*, *cuisine*, *compère*, and *baton*. Eleven English vowels were to be found so as to complete the adapted forms of those words to the sound system of English.

- In *"tête-à-tête"*, 29 participants (48.33%) gave the adapted English vowels so as to obtain <tête-à-tête>/teɪtɑːteɪt/ or /tetətet/. In the other cases, the French /ɛ/ yielded the English /ɜː/ (05%), /ɪ/ (03.33%), or /ə/ (08.33%). As to the French /a/, it yielded the English /æ/ (35%), /ɒ/ (03.33%), or /eɪ/ (05%).

- In *"rapport"*, 38 participants (63.33%) wrote the correct English adapted vowels so as to get <rapport>/ræpɔː/ or /rəpɔː/. The others

adapted the French /a/ for the English /eɪ/ (5%), /ʌ/ (1.66%), /ɑː/ (10%), /e/ (03.33%) or /ɒ/ (03.33%). As to the French /ɔ/, it yielded the English /ə/ (05%), or /ʊ/ (10%).

- In *"cuisine"* 13 participants wrote the correct English adapted vowels so as to get <cuisine>/kwɪziːn/ or /kwəziːn/. It is noteworthy that the French /i/ is not adapted the same way in the two syllables of the English *"cuisine"*. In the first syllable, it is adapted for/ɪ/ or /ə/, whereas in the second syllable, it is adapted for /iː/. The other participants adapted the French /i/ for /iː/ (10%), /ʊ/ (15%), or /ɔː/ (03.33%) –in the first syllable; and in the second syllable for /ɪ/ (46.33%), /ə/ (15%), or /aɪ/ (01.66%).

- In *"compère"*, 12 participants (20%) gave the correct English adapted vowels to get <compère>/kɒmpeə/. In this word, the French nasal /ɔ̃/ was already unpacked into [Vm] so that the participants were to write the English vowel that stands for /V/. Some participants thought that /ʌ/ is better (23.33%), others wrote /ɔː/ (11.66%), /ə/ (13.33%), or /æ/ (06.66%). As to the second vowel, they wrote /ə/ (28.33%), /ɜː/ (30%), /e/ (16.66%), or /ɪə/ (03.33%).

- In *"baton"*, 33 participants (55%) gave the correct English adapted vowels to get <baton>/bætɒn/ or /bætən/. In the other cases, the first vowel was /e/ (05%), /eɪ/ (13.33%), /ʌ/ (08.33%), /ɑː/ (06.66%), /ɒ/ (01.66%), or /a/, which doesn't belong to the English vocalic system (05%). As to the second vowel, they wrote /əʊ/ (01.66%), or /ɔː/ (08.33%).

As far as consonant adaptation is concerned, the following words were at stake in the experiment: *garage*, *bête-noire*, *chignon*, *manicure*, and *conjugal*. Participants were to fill in the twenty empty boxes with appropriate consonant phonemes so as to get the correct adapted forms of those words to the sound system of English.

- In *"garage"*, 48 participants (80%) successfully filled the 3 empty boxes available to get <garage>/gærɪdʒ/. Nine participants (15%) successfully filled the first two, three (05%) maintained the French /ʀ/. As to the last box, it has been filled with /ʒ/ by 11 participants (18.33%), whereas one participant (01.66%) wrote /dj/.

- In *"bête-noire"*, four consonants were to be provided, and 50 participants (83.33%) succeeded so as to get <bête-noire>/bet n wɑː/. Among the ten remaining participants, all of them successfully filled the first

three empty boxes, but instead of /w/ in the last one they put /j/ (01.66%), /ʊ/ (10%), or /ɔɪ/ (05%).

- In *"chignon"*, four consonants were to be provided and no participant succeeded in getting <chignon>/ʃiːn jɒn/ or /ʃiːn jɒŋ/. Apart from the 18 participants (30%), who filled the first box with /tʃ/ and the 14 who simply abandoned, all the others filled the first box with /ʃ/. The last box was also successfully provided. But the problem was at the level of the second and the third boxes which were the result of the adaptation of the French /ɲ/. This consonant was adapted as /gn/ (46.66%), /jŋ/ (01.66%), /kŋ/ (05%), /ŋj/ (03.33%), /wj/ (08.33%), or /jn/ (11.66%).

- In *"manicure"*, 24 participants (40%) succeeded in providing the four boxes available with the appropriate consonants so as to get <manicure>/mænɪk jʊə/. 36 participants (60%) succeeded in the first three only but failed in the last one. They put /w/ (51.66%), or /ə/ (08.33%).

- As far as *"conjugal"* is concerned, 33 participants (55%) obtained <conjugal>/kɒn dʒʊgəl/. The others (27 participants) correctly filled the first, the fourth and the fifth boxes with /k/, /g/, and /l/ respectively. As to the second box, only 4 participants (06.66%) missed it by putting /ŋ/ instead

of /n/. The third box, which is supposed to house /ʤ/ received /j/ (18.33%), or /ʒ/ (20%).

The last part of the segmental level of the experiment was the joint consonant and vowel adaptation in *coincidence*, *portmanteau*, *laissez-faire*, *sang-froid*, and *millionaire*.

- Only two participants out of the sixty (3.33%) succeeded in adapting the phonemes of <coincidence>/kəʊɪnsɪdəns/. 20 participants (33.33%) adapted it for */kwɔɪnsiːdəns/; 08 participants (13.33%) for */kwɔɪnsiːdens/; 11 participants (18.33%) for */kɔɪnsiːdəns/; 13 participants (21.66%) for */kəʊiːsɪdens/; and 6 participants (10%) for */kəɪnsɪdens/.

- Twelve participants (20%) successfully adapted <millionaire>/mɪljəneə/ to the sound system of English. 4 participants (06.66%) adapted it for */mɪljɒnə/; 33 others (55%) adapted it for */mɪlɪənə/; 02 participants (03.33%) adapted it for */mɪlɒniːə/; and 9 participants (15%) adapted it for */miːlɪɒneə/.

- Fourteen participants (23.33%) gave the correct adaptation <sang-froid>/sænfrwɑː/. 12 participants (20%) adapted it for*/sænfrɔɪ/; 21 participants (35%) adapted it for*/sænfrʊə/; 7 participants (11.66%)

adapted it for */sənfrwɔ/; and 6 participants (10%) adapted it for */sæŋfrwaː/;

- Eighteen participants (30%) succeeded with <laissez-faire>/leɪseɪfeə/. 17 participants (28.33%) adapted it for */lesəfeə/; 9 participants (15%) adapted it for */lesɪfə/; 15 participants (25%) adapted it for */leseɪfeə/; and 1 participant (01.66%) adapted it for */leseəfə/.

- Twenty-six participants (43.33%) gave the correct adaptation of <portmanteau>/pɔːtmæntəʊ/ to the sound system of English. 13 participants (21.66%) adapted it for */pɔːtməntə/; 6 participants (10%) adapted it for */pɔːtmɒntəʊ/; 10 participants (16.66%) adapted it for */pɔːtmæntə/; and 5 participants (08.33%) adapted it for */pɒtməntəʊ/.

4.2.2.1.2. Suprasegmental data: stress placement

The stress placement experiment was based on the following words: *contretemps*, *vinaigrette*, *sobriquet*, *chargé d'affaires*, and *cordon sanitaire*. In each of these words, only one syllable is supposed to carry the primary stress; and only participants who put the stress on the syllables at stake are taken into account here.

- In *"contretemps"*, 44 participants (73.33%) placed the primary stress on the required syllable: /ˈkɒnt.rə.tɑːŋ/. The others misplaced the primary

stress: /kɒnt. ˈrə.tɑːŋ/ (4 participants – 06.66%), and /kɒnt.rə. ˈtɑːŋ/ (12 participants – 20%).

- In *"vinaigrette"*, 22 participants (36.66%) placed the primary stress on the required syllable: /vɪn.ɪ. ˈgret /. The others misplaced the primary stress: /ˈvɪn.ɪ.gret / (24 participants –40%), /vɪn. ˈɪ.gret / (14 participants – 23.33%).

- In *"sobriquet"* 32 participants (53.33%) placed the primary stress on the required syllable: /ˈsəʊ.brɪ.keɪ/. The others misplaced the primary stress: /səʊ. ˈbrɪ.keɪ/ (18 participants – 30%), and /səʊ.brɪ. ˈkeɪ/ (10 participants – 16.67%).

- In *"chargé d'affaires"* 6 participants (10 %) placed the primary stress on the required syllable: /ʃɑː.ʒeɪ.də. ˈfeə/. The others misplaced the primary stress: /ˈʃɑː.ʒeɪ.də.feə/ (4 participants – 06.66%), /ʃɑː.ˈʒeɪ.də.feə/ (18 participants – 30%), and /ʃɑː.ʒeɪ. ˈdə.feə/ (32 participants – 53.33%).

- In *"cordon sanitaire"* 8 participants (13.33%) placed the primary stress on the required syllable: /kɔː.dɒn.sæn. ɪ. ˈteə /. The others misplaced the primary stress: /ˈkɔː.dɒn.sæn. ɪ.teə / (08 participants – 13.33%), /kɔː.ˈdɒn.sæn. ɪ. teə / (02 participants – 03.33%),

/kɔː.dɒn. ˈsæn. ɪ. teə / (38 participants – 63.33%), and /kɔː.dɒn.sæn. ˈɪ. teə / (4 participants – 6.66%).

4.2.2.2. Interpretation

4.2.2.2.1. Segmental findings

The results in Table 11 (Item I-C) are evidence that Benin EFL students have difficulties in adapting French loanwords to the sound system of English. This is well illustrated by Figure 2 in (26), where the graph of "correct adaptation" is far lower (especially in the case of "coincidence") than the one of "incorrect adaptation".

(26)

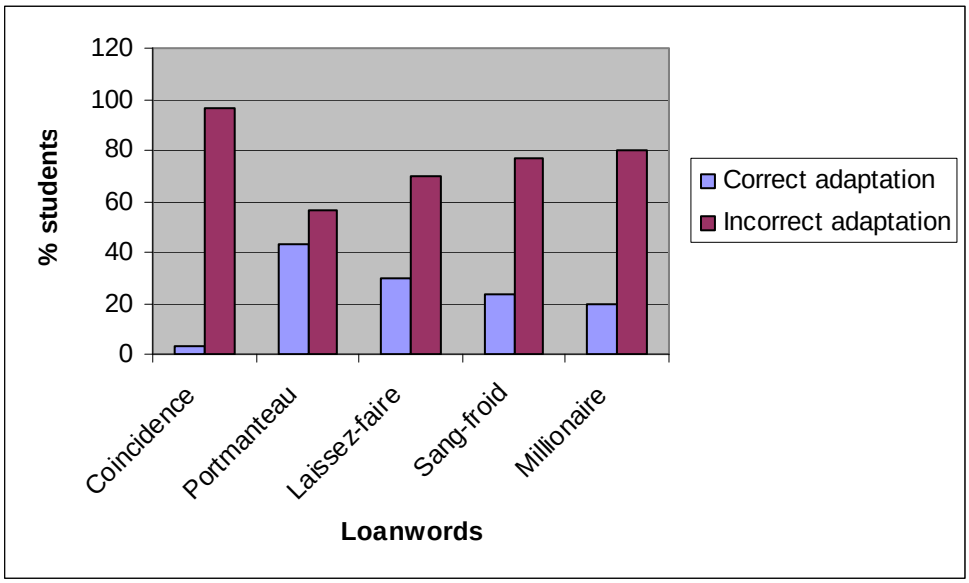


Figure 2: Participants' performance in French loanwords adaptation

A deep insight in these findings makes it possible to assert that vowels adaptation is more difficult for the participants than consonants adaptation.

An example of this is that of the word *coincidence*, which has been correctly adapted by two out of the sixty participants. The following table shows students' performance at each level of the four syllables that make up the word.

(27)

Word	Syllables	Students	%
Coincidence	/kəʊ/	04	06.66
	/ɪn/	18	30
	/sɪ/	46	76.66
	/dəns/	30	50

Table 11: Participants' performance in adapting the word *coincidence*

(27) shows that only four participants achieved a good adaptation of /kəʊ/. The onset of that syllable is /k/ and its centre is /əʊ/. It has no coda. When I go back to students' production, all of them successfully adapted /k/ but only four adapted the French /ɔ/ to English by putting /əʊ/. In the other 56 participants' adaptations the French /kɔ.ɛ̃/ yielded */kwɔ.ɪn/ ; */kɔ.ɪn/; or */kə.ɪn/ to mention just a few.

The findings in Table 10 (Item I – A&B) give support to what I have asserted earlier: "Vowels adaptation is more difficult for the participants than consonants adaptation". Parts A and B of Item I –as I said earlier– deal with vowel and consonant adaptation respectively. In order to access participants'

level in consonants and vowels adaptation, I calculate what I called "Adaptation Rate" (AR) of each of them. So, each participant has a Consonant Adaptation Rate (CAR), and a Vowel Adaptation Rate (VAR). As a matter of fact, when a participant succeeds in achieving for example a good adaptation of 4 vowels (within the words, but not in isolation) out of the 11 involved in the experiment, his/her Vowel Adaptation Rate (VAR) is 36.36%. A participant's VAR can be obtained through the following equation:

$$VAR = \frac{\text{The number of English adapted vowel(s) successfully found by the participant}}{\text{The total number of English adapted vowels (11 in this experiment)}} X\ 100$$

When for example 12 consonants out of the 20 involved in the experiment are achieved, the participant's Consonant Adaptation Rate (CAR) is 60%. A participant's CAR can be calculated using the following equation:

$$CAR = \frac{\text{The number of English adapted consonant(s) successfully found by the participant}}{\text{The total number of English adapted consonants (20 in this experiment)}} X\ 100$$

Once the notion of Adaptation Rate clarified, I would like to compare the Adaptation Rate of the sixty participants. Figure 3 in (29) opposes vowels

adaptation to consonants adaptation. On the horizontal axis, there are ARs in percentage, and on the vertical axis, there are the number of students.

(28)

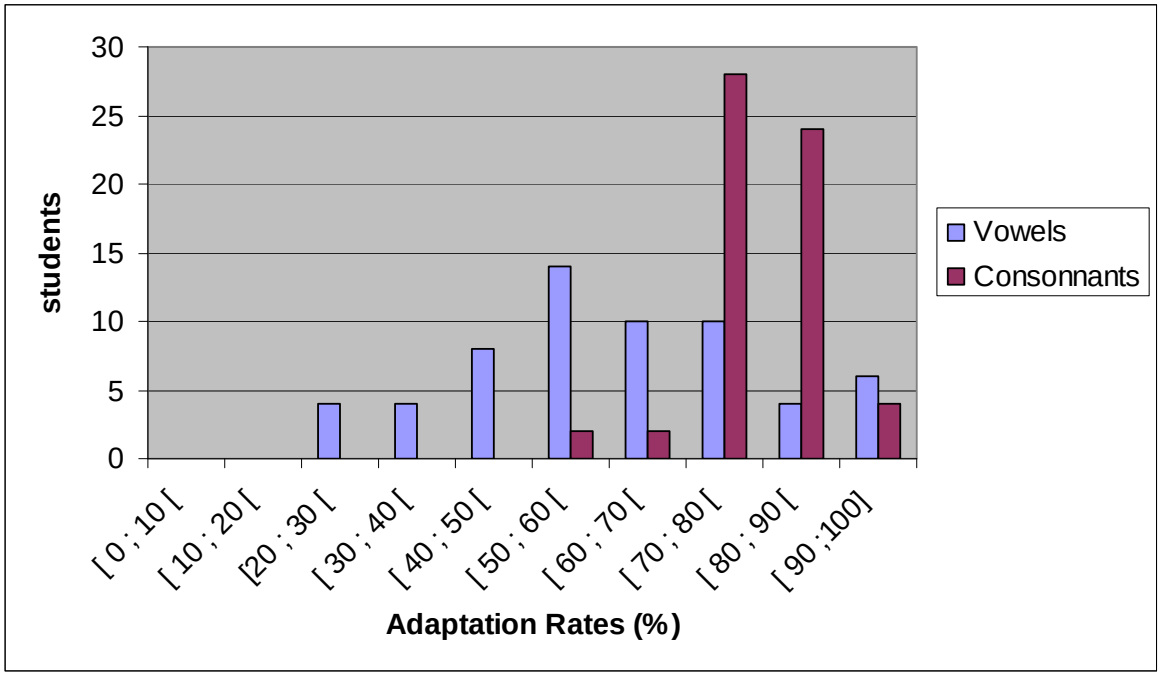


Figure 3: Comparative study of participants' Consonant and Vowel Adaptation Rates.

The diagram can be divided into four parts: Low level of AR, Mid-low level, Mid-high level, and High level of AR.

- Low level ($0 \leq AR < 20$): No participants have an AR lower than 20%.

- Mid-low level ($20 \leq AR < 50$): sixteen participants have a VAR between 20% and 50%, but no participants have a CAR lower than 50%.

- Mid-high level ($50 \leq AR < 70$): twenty-four participants in sixty have a VAR between 50% and 70% against four participants for CAR within the same scope.

- High level ($70 \leq AR \leq 100$): twenty participants have a VAR between 70% and 100%, whereas fifty-six have a CAR within the same boundaries.

In short, forty participants in sixty (66.67%) have a VAR lower than 70%, whereas four participants (06.67%) have a CAR lower than 70%. Twenty participants (33.33%) have a VAR higher than 70% against fifty-six participants (93.33%), who have a CAR higher than 70%. This analysis confirms the idea that it is difficult for Benin EFL students to adapt French vowels to the English system rather than to adapt French consonants.

The reasons why they face difficulties in vowel adaptation rather than consonant are the following:

- Many French consonants have their correspondents in English. French consonants yield one or (in rare cases) two adaptations (except the case of /j/)[40].

- Each French vowel yields an average of 2 or 3 adaptations in English (see Table 8).

- English spelling is very inconsistent (especially in the case of vowels). The same letters may lead to different sounds: father [ɑː]; all [ɔː]; about [ə]; apple [æ]; any [e]; age [eɪ].

But if vowels adaptation causes nuisances to Benin EFL students, what happened during the consonant adaptation of *"chignon"* (in the experiment)

[40] See Table 7

so that no participant got the actual adapted form i.e. <chignon>/ʃiːn jɒn/ or /ʃiːn jɒŋ/? The reason is that French <chignon>/ʃiɲɔ̃/ contains two ill-formed segments in a row; i.e. /ɲ/, and /ɔ̃/, which are prohibited in English. But there is no problem at the level of the nasal vowel since it has been unpacked into VN, and the V segment provided. The great majority of participants gave the adapted consonants except the English adaptation of the French /ɲ/. The reason why no participant gave the English adaptation of /ɲ/ is that they certainly don't know that /ɲ/ is made of two consonantal elements; /n/+/j/ (see Meunier 1999: 7).

4.2.2.2.2. Suprasegmental findings

With reference to the analysis of the results of the stress placement experiment, I assert that Benin EFL students randomly choose the syllable that must carry the primary stress in polysyllabic words. Participants' performance in stress placement is summarised in Figure 4 in (30). It is worth mentioning that in the five words at stake in the experiment, the primary stress falls on the first syllable in *contretemps* and *sobriquet*; and on the last syllable in *vinaigrette*, *chargé d'affaires*, and *cordon sanitaire*. The choice of the last three words was on purpose. It aimed at testing whether the

participants would comply with the stress placement rule of the French language which states that the stress always falls on the last syllable.

(29)

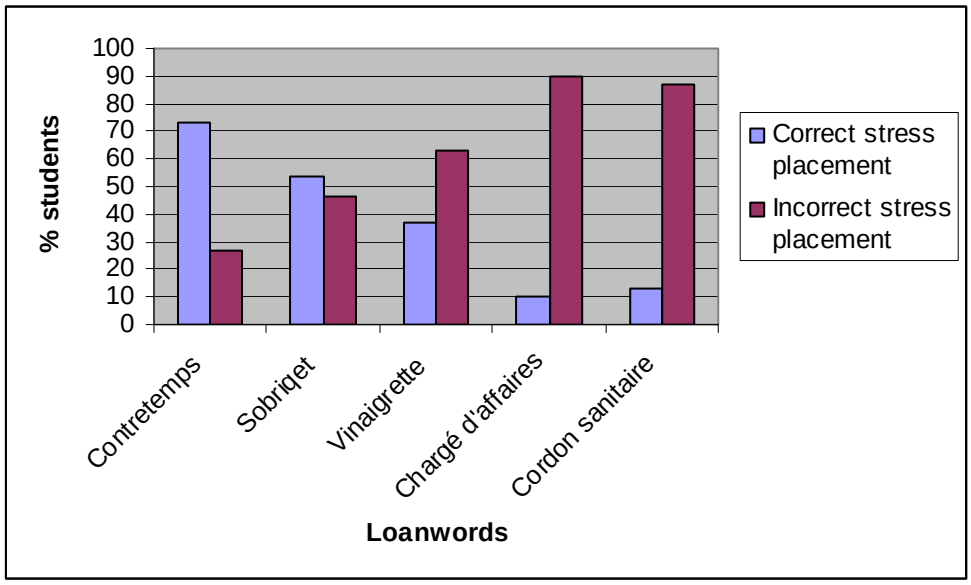


Figure 4: Participants' performance in stress placement

Figure 4 shows that most of the participants succeed in placing the primary stress on the right syllable in the first two words (where it falls on the first syllable), unlike the other three words (where it falls on the last syllable). This could be explained by the fact that participants want to avoid at all costs the French stress placement rule, once in the English language context. This leads them to wrong stress placement in polysyllabic loanwords whose last syllable is supposed to carry the primary stress.

4.3. Conclusions, Implications, and Recommendations

In order to find answers to the research questions that underlay this study, I carried out an investigation by interview and an experiment. Through these different steps, I draw some major conclusions. The latter forcibly pose some problems to be solved. This entails some implications which, in their turn, will give rise to recommendations.

4.3.1. Conclusions

Through this research work, the following major conclusions have been drawn:

- Benin EFL learners are actually aware of the existence of some French words in the English lexicon, but they are reluctant to use them. Loanwords are considered as strange words and treated as such.
- At the segmental level, it has been noticed that Benin EFL learners have difficulties in adapting French loanwords to the sound system of English. Consonant adaptation is easier than vowel adaptation.
- As far as the suprasegmental level is concerned, it's been noticed that Benin EFL students randomly choose the syllable that must carry the primary stress in polysyllabic words.

- The process of loanword adaptation should be viewed from the joint perception-phonology standpoint.

4.3.2. Implications

In communication we choose words on purpose: to convey message(s). Given that oral communication is not (in most case) prepared in advance, nobody should be forced to choose this or that word in a given communication event. In the same way, nobody can impose to his/her interlocutor the words he/she is supposed to use in a given process of communication. So, participants should be prepared to face any communication event in order to avoid mispronunciation and misunderstanding, which lead to miscommunication or communication breakdown. This imposes to Benin EFL students strong ear training, a perfect mastering of the English sound system, and phonotactics.

Besides, they must learn stress placement rules so as to use them accordingly for the same purpose of avoiding miscommunication.

4.3.3. Recommendations

Benin EFL students should bear in mind that language learning is not a classroom matter only. Languages are learned for communication purposes, and no word or class of words should be excluded from one's "lexical garden". This garden is supposed to be enriched, and this cannot be achieved

overnight. It is an ongoing process that imposes a self-involvement attitude and hard work bravely done, added to regular practice of the language.

Authorities in charge of Benin EFL students training should lay emphasis on Communicative Language Teaching. This goes (among others) through appropriate curricula and programmes, supported by required teaching/learning materials. Students should benefit Exchange Programmes (with English-speaking countries) organised by the English Department and supported by authorities in charge of higher education.

Loanword adaptation should be included in student training programme. This can help to update English phonotactics regarding clusters that are attested by the English language.

CONCLUSION

One of the major ways available to enrich a language lexicon is borrowing. This is favoured by language contact. Through this process, the users of a borrowing language (also called Target Language or L1) import lexical items they need, from a source language or L2. These lexical items called loanwords are adapted to the sound system of the target language. Adaptation necessity stems from the fact that different languages have different sound systems and phonotactics. Through this study, I decided to shed light upon the outcome of French loanwords, once they pass through the narrow mesh composed of English sound system and phonotactics, to be adapted and integrated. I was also interested in what use Benin EFL learners make of French loanwords in English. To achieve my goals, I made an inventory of both French and English vowels and consonants. Then I made a comparison of phonemic transcriptions of these words found in French and English monolingual dictionaries. This revealed that most French consonants are in English, and French consonants have less adapted forms (one or maximum two) than vowels.

In order to single out Benin EFL learners' behaviour towards loanwords, I organised an interview involving Benin EFL students of Abomey-Calavi University, and an experiment concerning third-year-English students specialising in linguistics. The interview and the experiment revealed

that Benin EFL students consider French loanwords as strange words to the English lexicon and don't use them of course. They hate using them for fear of being told that they don't have a good command of the English language, or mispronouncing these words. As a matter of fact, this study is not designed to make students use loanwords. Rather it aims at raising their awareness on the existence of such words so as not to be confused when loanwords occur in conversation. Benin EFL students actually face difficulties in adapting French phonemes to English. Moreover, they don't have a good command of stress placement rules in English.

There are certainly some aspects of French loanwords adaptation to the phonology of English this study doesn't take into account. One is the basic phonological rules that underlie the adaptation of French consonants and vowels to English. Another is why a given phoneme X is realised Y and when. These could be dealt with in other research works. As Maxwell Maltz said, "*we are built to conquer environment, solve problems, achieve goals, and we find no real satisfaction or happiness in life without obstacles to conquer and goals to achieve*"[41].

[41] See Maxmell Maltz Quotes, available online at http://www.brainyquote.com/quotes/authors/m/maxwell_maltz.html

REFERENCES

Chang, Charles. (in press). Phonetics vs. Phonology in loanword Adaptation: Reviewing the Role of the Bilinguals. In *Proceeding of the 34th Annual meeting of the Berkeley Linguistic Society; General Session and Parasession on Information structure.* Berkeley, CA: Berkeley Linguistics Society

Chékété, Jéronime S.A. 2005. *Les emprunts d'origine anglaise dans le Gain (Gen-Mina).* Unpublished Maîtrise dissertation in Linguistics, UAC.

Crystal, David. 1985. *A Dictionary of Linguistics and Phonetics.* 2nd ed. Oxford: Basil Blackwell.

Cubrovic, Biljana. 2002. *Assimilation of recent French loanwords in English: transphonemisation of nasal vowels.* Retrieved on 14 November, 2008 from http://www.summerschool2002.nis.sdu.dk/studentsession/cubrovic.doc

Davidson, Lisa. 2007. The relationship between the perception of non-native phonotactics and loanword adaptation. *Phonology 24*: 261-286

Dawson, C. 2004. *English and its relationship with French.* Retrieved on 08 May, 2009 from http://www.realfrench.net/pdf/eng.pdf

Dohlus, Katrin. 2005. Phonetics or Phonology: Asymmetries in Loanword Adaptations – French and German Mid Front Rounded Vowels in Japanese. *ZAS Papers in Linguistics 42*: 117-135

Fenyvesi, Anna & Gyula Zsigri. 2006. The Role of Perception in Loanword Adaptation: The Fate of Initial Unstressed Syllables in American Finnish and American Hungarian. *SKY Journal of Linguistics 19*: 131-146

Gbéto, Flavien. 2000a. *Les emprunts linguistiques d'origine européenne en Fon (Nouveau Kwa, Gbe : Bénin) : Une étude de leur intégration au plan phonético-phonologique*. Köln : Köppe.

_____ 2000b. Les noms de personne d'origine européenne et leurs formations hypocoristiques en Maxi (New Kwa :Gbe) dans leur contribution à la théorie phonologique. *AAP 62 :*5-37

Gimson, A.C. 1970. *An introduction to the pronunciation of English*. 2nd ed. London: Edward Arnold

Haunz, Christine. 2002. *The role of speech perception in the adaptation of loanwords.* Retrieved on 13 August, 2009 from http://www.ling.ed.ac.uk/~pgc/archive/2002/proc02/haunz02.pdf

Haunz, Christine. 2003. *Grammatical and Non-Grammatical Factors in Loanword Adaptation.* Retrieved on 14 November, 2008 from http://www.ling.ed.ac.uk/~pgc/archive/2003/proc03/Christine_Haunz03.pdf

Jones, Daniel. 2006. *English Pronouncing Dictionary.* 17th ed. Cambridge: Cambridge University Press.

Kaplan, Abby. 2008. *Perceptual and Articulatory Influences on Phonological Alternations.* Retrieved on 08 May, 2009 from http://people.ucsc.edu/~kaplanas/CV/LASC2008.pdf

Kenstowicz, Michael. 2003. Review Article: The Role of Perception in Loanword Phonology. A review of Les emprunts linguistiques d'origine européenne en Fon by Flavien Gbéto, Köln: Rüdiger Köppe Verlag, 2000. *Studies in African Linguistics,Volume 32, Number 1 :* 95-112

Laver, John. 1994. *Principles of Phonetics.* Cambridge: Cambridge University Press

List of French words and phrases used by English speakers. *Wikipedia, the free encyclopedia.* Retrieved on 14 November, 2008 from http://en.wikipedia.org

Mackey, William F. 1976. *Bilinguisme et contact des langues*. Paris : Editions Klincksieck

Meunier, Christine. *Phonétique acoustique*. Retrieved on 10 August 2009 from http://aune.lpl.univ-aix.fr~meunier/publi/neurophysio_ch13.pdf

Ostby, Katherine. A. 2005. *Le système vocalique du français parisien. Une etude dans le cadre du projet "Phonology du français contemporain".* Retrieve on 08 December, 2009 from http://www.init.fr.RJC2005/database/pdf/AslaOstbyKatherine2.pdf

Paradis, Carole. 1996. *The Inadequacy of Filters and Faithfulness in Loanword Adaptation.* Retrieved on 08 September, 2008 from http://www.lli.ulaval.ca./pages_professeurs/documrntsparadiscarole/Paradis_1996.pdf

Peperkamp, Sharon. 2005. *A Psycholinguistic Theory of Loanword Adaptations.* Retrieved on 06 August, 2008 from http://www.uwm.edu/~iverson/peperkamp.psycho.pdf

_____ & Emmanuel Dupoux. 2003. Reinterpreting loanword adaptations: the role of perception. *15th ICPhS Barcelona*: 367-370

Prince, Alan & Paul Smolensky. 2002. *Optimality Theory: Constraints interaction in generative grammar.* (ROA Version) Retrieved on 24 April, 2009 from http://roa.rutgers.edu/files/537-0802/537-0802-PRINCE-0-0.PDF

Roach, Peter. 1991. *English Phonetics and Phonology,* 2nd ed. Cambridge: Cambridge University Press

Rose, Yvan & Katherine Demuth. 2005. *Vowel epenthesis in loanword adaptation: phonological and phonetic considerations.* Retrieved on 14 November, 2008 from http://www.cog.brown.edu/courses/cg121/Rose%20&%20Demuth%20(2005)

Sannier, Frédérique et al. 1998. *How a French TTS System can Describe Loanwords.* Retrieved on 08 September, 2008 from http://www.shlrc.mq.edu.au/proceedings/iclsp98/PDF/AUTHOR/SL980497.PDF

Silverman, Daniel. 1992. Multiple scansion in loanword phonology: Evidence from Cantonese. *Phonology* 9: 289-328

Vendelin, Inga & Sharon Peperkamp. 2004. *Evidence for phonetic adaptation of loanwords: an experimental study.* Retrieved on 08 May, 2009 from http://www.lscp.net/persons/peperkamp/jel2004.pdf

_____ 2006. The influence of orthography on loanword adaptations. *Lingua* 116: 996-1007

Yèhouénou, C. Bertin. 2009. *Phonetics and phonology of English*. 3rd ed. Cotonou: GeVoix Publications

APPENDIX

Appendix A: Interview

QUESTIONS

I- How many French words do you know that used in English? Take five minutes to list some of them.

II- Choose among the following pairs of sentences the one you would use if you were in the context (Please put a tick (✓) in the appropriate box).

1. ☐ He likes to eat ***bonbons*** when he watches TV.

   ☐ He likes to eat ***sweets*** when he watches TV.

2. ☐ Amina hasn't opened her ***shop*** today.

   ☐ Amina hasn't opened her ***boutique*** today.

3. ☐ The rain ***commenced*** at 10 o'clock.

   ☐ The rain ***began*** at 10 o'clock.

4. ☐ Don't give up the ***fight***.

   ☐ Don't give up the ***combat***.

5. ☐ ***Liberty*** is fundamental in a democracy.

   ☐ ***Freedom*** is fundamental in a democracy.

III- How do you pronounce these English words?

1. garage
2. envelope
3. voyage
4. cliché
5. bric-à-brac

IV- English words that come from the French language are called "loanwords". Do you use them in your conversations?

If "Yes", give some examples.

If "No", give the reason(s) why you don't use them.

V- How do you think phonetics and phonology can help you to solve mispronunciation problems regarding loanwords and stimulate their frequent use in your conversations?

Appendix B: Experiment

PRELIMINARIES

I- French phonemes

A. French consonant phonemes

/p/ as in ‘porte’ /pɔʀt/

/b/ as in ‘bal’ /bal/

/t/ as in ‘train’ /tʀɛ̃/

/d/ as in ‘dent’ /dɑ̃/

/k/ as in ‘clé’ /kle/

/g/ as in ‘gomme’/gɔm/

/f/ as in ‘foire’ /fwaʀ/

/v/ as in ‘voile’ /vwal/

/s/ as in ‘sang’ /sɑ̃/

/z/ as in ‘zen’ /zɛn/

/ʃ/ as in ‘chien’ /ʃjɛ̃/

/ʒ/ as in ‘jeune’/ʒœn/

/ʀ/ as in ‘rire’ /ʀiʀ/

/m/ as in ‘mer’ /mɛʀ/

/n/ as in ‘nage’ /naʒ/

/ɲ/ as in ‘gnon’ /ɲõ/

/l/ as in ‘lien’ /ljɛ̃/

/w/as in ‘oui’/wi/

/j/ as in ‘fille’ /fij/

/ɥ/ as in ‘huit’/ɥit/

B. French vowel phonemes

/i/ as in ‘gris’ /gʀi/

/e/ as in ‘dé’ /de/

/ɛ/ as in ‘belle’ /bɛl/

/y/ as in ‘pur’/pyʀ/

/ø/ as in ‘deux’ /dø/

/œ/ as in ‘leur’ /lœʀ/

/a/ as in ‘patte’ /pat/

/ə/ as in ‘demain’ /dəmɛ̃/

/ɑ/ as in ‘pâte’ /pɑt/

/u/ as in ‘fou’ /fu/

/o/ as in ‘gros’ /gʀo/

/ɔ/ as in ‘corps’ /kɔʀ/

/ɑ̃/as in ‘clan’ /klɑ̃/

/ɛ̃/ as in ‘lin’ /lɛ̃/

/ɔ̃/ as in ‘long’ /lɔ̃/

/œ̃/ as in ‘brun’ /bʀœ̃/

II- English phonemes

A. English consonant phonemes

/p/ as in ‘pin’/pɪn/

/b/ as in ‘bin’/bɪn/

/t/ as in ‘tin’ /tɪn/

/d/ as in ‘din’/dɪn/

/k/ as in ‘kin’/kɪn/

/g/ as in ‘gun’/gʌm/

/f/ as in ‘fine’/faɪn/

/v/ as in ‘vine’/vaɪn/

/θ/ as in ‘think’/θɪŋk/

/ð/ as in ‘this’/ðɪs/

/s/ as in ‘seal’/siːl/

/z/ as in ‘zeal’/ziːl/

/ʃ/as in ‘sheep’/ʃiːp/

/ʒ/ as in ‘measure’/meʒə/

/h/ as in ‘how’/haʊ/

/ʧ/ as in ‘chain’/ʧeɪn/

/ʤ/ as in ‘jane’/ʤeɪn/

/m/ as in ‘sum’/sʌm/

/n/ as in ‘sun’/sʌn/

/ŋ/ as in ‘sung’/sʌŋ/

/l/ as in ‘light’/laɪt/

/r/ as in ‘right’/raɪt/

/j/ as in ‘yet’/jet/

/w/ as in ‘wet’/wet/

B. English vowel phonemes

/iː/ as in ‘bean’/biːn/

/ɪ/ as in ‘pit’/pɪt/

/e/ as in ‘pet’/pet/

/æ/ as in ‘pat’/pæt/

/ɑː/ as in ‘barn’/bɑːn/

/ɒ/ as in ‘pot’/pɒt/

/ɔː/ as in ‘born’/bɔːn/

/ʊ/ as in ‘put’/pʊt/

/uː/ as in ‘boon’/buːn/

/ʌ/ as in ‘putt’/pʌt/

/ɜː/ as in ‘burn’/bɜːn/

/ə/ as in ‘another’/ənʌðə/

/eɪ/ as in ‘bay’/beɪ/

/aɪ/ as in ‘buy’/baɪ/

/ɔɪ/ as in ‘boy’/bɔɪ/

/əʊ/ as in ‘no’/nəʊ/

/aʊ/ as in ‘now’/naʊ/

/ɪə/ as in ‘peer’/pɪə/

/eə/ as in ‘pair’/peə/

/ʊə/ as in ‘poor’/pʊə/

TEST

Item I: Phoneme realisation

Imagine you were in an English-speaking country, with a native speaker of English who had no contact with the French language. You had to say the sentences in the exercise below and make yourself understood. Pay attention to your pronunciation so as to avoid miscommunication. You will complete or give the English adaptation of the words in italics, according to the provided clues (phonemic symbols and the boxes available).

A. Complete the following phonemic transcriptions with the correct vowel phonemes (pure vowels or diphthongs).

Example:

'coup d'état' ⇒

k		ˈd		t	

- There won't be a *coup d'état* in my country.

'doyen' ⇒

ˈd			n

- I haven't seen the *doyen* today

Answer:

'coup d'état' ⇒

k	uː	ˈd	eɪ	t	ɑː

'Doyen' ⇒

ˈd	ɔɪ	ə	n

1. 'tête-à-tête'⇒

t		t		ˈt		t

- The president is in *tête-à-tête* with his guest.

2. 'rapport'⇒

ˈr		p	

- It was important for the mother to maintain *rapport* with her children.

3. ‘cuisine’⇒

k	w		ˈz		n

- The hotel restaurant is noted for its excellent *cuisine*.

4. ‘compère’⇒

ˈk		m	p	

- John is going to be the *compère* for the show tonight.

5. ‘baton’⇒

ˈb		t		n

- The President handed over the *baton* to his successor.

B. Complete the following phonemic transcriptions with the appropriate consonant phonemes.

Example:

‘rapprochement’ ⇒

	æ			ɒ			ɒ	

- There now seems little chance of *rapprochement* between the warring factions.

‘volte-face’ ⇒

	ɒ				aː	

- This represents a *volte-face* in government thinking.

Answer:

‘rapprochement’ ⇒

r	æ	ˈp	r	ɒ	ʃ	m	ɒ	ŋ

‘votle-face’ ⇒

v	ɒ	l	t	ˈf	aː	s

1. ‘garage’ ⇒

	æ		ɪ	

- Luckily, I put my car in the *garage* before the hail storm struck.

2. ‘bête-noire’ ⇒

	e				aː

- Mathmatics is the *bête-noire* of my students.

3. ‘chignon’ ⇒ | | iː | | | ɒ | |

- She looks stylish with her *chignon*.

4. ‘manicure’ ⇒ | | æ | | ɪ | | | ʊə |

- How much is the *manicure*?

5. ‘conjugal’ ⇒ | | ɒ | | | ʊ | | ə | |

- He lost his *conjugal* rights because he had had sex with his secretary.

C. Supply the phonemic transcription of the following words.

Example

‘bonbons’ ⇒ | | | | | | | |

- He likes to eat *bonbons* when he watches TV.

‘critique’ ⇒ | | | | | | |

- My English assignment was to write a *critique* of the president’s speech.

Answer:

‘bonbons’ ⇒ | ˈb | ɒ | n | b | ɒ | n | z |

‘critique’ ⇒ | k | r | ɪ | ˈt | iː | k |

1. ‘coincidence’ ⇒ | | | | | | | | | | |

- It’s not a *coincidence* that none of the directors are women.

2. ‘portmanteau’ ⇒ | | | | | | | | |

- ‘Depression’ is a *portmanteau* condition.

3. ‘laissez-faire’ ⇒ | | | | | | |

- They have a *laissez-faire* approach to bringing up their children.

4. ‘sang-froid’ ⇒ | | | | | | | |

-John kept his *sang-froid* despite the danger.

5. ‘millionaire’⇒ | | | | | | | |

- No *millionaire* is *millionaire* by himself.

Item II: Stress placement.

Underline the syllable that carries the primary stress in each of the following words.

Example: ‘Porto-novo’ ⇒ /pɔː.təʊ.nəʊ.vəʊ/
‘Doyen’ ⇒ /dɔɪ.ən/
Answer:
‘Porto-novo’ ⇒ /pɔː.təʊ.nəʊ.vəʊ/
‘Doyen’ ⇒ /dɔɪ.ən/

1. ‘contretemps’ ⇒ /kɒnt.rə.taːŋ/
2. ‘vinaigrette’ ⇒ /vɪn.ɪ.gret/
3. ‘sobriquet’ ⇒/səʊ.brɪ.keɪ/
4. ‘chargé d’affaires’ ⇒/ʃaː.ʒeɪ.də.feə/
5. ‘cordon sanitaire’ ⇒ /kɔː.dɒn.sæn.ɪ.teə/

Note: This is a French phonemic transcription of the words used in the test.

‘coup d’état’ ⇒ /kudeta/

‘doyen’ ⇒ /dwajɛ̃/

‘tête-à-tête’⇒ /tɛtatɛt/

‘rapport’ ⇒/ʀapɔʀ/

‘cuisine’⇒/kɥizin/

‘compère’⇒/kɔ̃pɛʀ/

‘baton’⇒/batɔ̃/

‘rapprochement’ ⇒/ʀapʀɔʃmɑ̃/

‘volte-face’ ⇒ /vɔltfas/

‘garage’ ⇒/gaʀaʒ/

‘bête-noire’ ⇒ /bɛtnwaʀ/

‘chignon’ ⇒/ʃiɲɔ̃/

‘manicure’ ⇒ /manikyʀ/

‘conjugal’ ⇒/kɔ̃ʒygal/

‘bonbons’ ⇒ /bɔ̃bɔ̃/

‘critique’ ⇒/kʀitik/

‘coincidence’ ⇒/kɔ̃ɛ̃sidɑ̃s/

‘portmanteau’ ⇒/pɔʀtmɑ̃to/

‘laissez-faire’ ⇒/lɛsefɛʀ/

‘sang-froid’ ⇒/sɑ̃fʀwɑ/

‘millionaire’⇒/miljɔnɛʀ/

‘Porto-novo’ ⇒/pɔʀtonovo/

‘contretemps’ ⇒/kɔ̃tʀətɑ̃/

‘vinaigrette’ ⇒/vinɛgʀɛt/

‘sobriquet’ ⇒/sɔbʀikɛ/

‘chargé d’affaires’ ⇒/ʃaʀʒedafɛ/

‘cordon sanitaire’ ⇒/kɔʀdɔ̃sanitɛʀ/

Appendix C: Phonetic tables of French and English consonants

Point d'articulation / Mode articulatoire	Bilabiales	Labiodentales	Dentales	Alvéolaires	Prépalatales	Palatales	Post-palatales ou vélaires	Uvulaires
Occlusives sourdes	p		t				k	
Occlusives sonores	b		d				g	
Constrictives sourdes		f		s	ʃ			
Constrictives sonores		v		z	ʒ			
Nasales	m		n			ɲ		
Latérale				l				
Vibrante								ʀ
Semi-consonne	w/ɥ					j		

1. Phonetic table of French consonants (Martinet, available online at http://pagesperso-orange.fr/andre.thibau/phonologie.semaine5tableaux.pdf.)

Place of articulation / Manner of articulation	Bilabial	Labiodental	Dental	Alvéolar	Palato-alveolar (Post-alveolar)	Palatal	Velar	Glottal
Plosives (voiceless)	p			t			k	
Plosives (voiced)	b			d			g	
Fricatives (voiceless)		f	θ	s	ʃ			h
Fricatives (voiced)		v	ð	z	ʒ			
Affricate (voiceless)					ʧ			
Affricate (voiced)					ʤ			
Nasal	m			n			ŋ	
Lateral				l				
Approximant	w			r		j		

2. Phonetic table of English consonants (Adapted from Roach 1991: 62)