MODULE 2

Unit 1   Distribution Segmentale
Unit 2   Allophones et Distribution Complémentaire
Unit 3   Les Traits Phonologiques
Unit 4   Les Traits Distinctifs
Unit 5   Les Règles Phonologiques

UNIT 1   LA DISTRIBUTION SEGMENTALE

CONTENTS

1.0   Introduction
2.0   Objective
3.0   Main Content
        3.1   Phonémes et Distribution des Segments
        3.2   Paire Minimale
        3.3   Representation des Paires Minimales
4.0   Conclusion
5.0   Summary
6.0   Tutor-Marked Assignment
7.0   References/Further Reading

1.0   INTRODUCTION

In phonology, there is a systematic relationship between some sounds. Sounds appear in different contexts or environments they have what is called distribution.

2.0   OBJECTIVE

At the end this unit, you should be able to:

•   work out the distribution of words in a particular environment as well as the evolving paire minimale.

3.0   MAIN CONTENT

3.1   Phonémes et Distribution des Segments

The different contexts in which sounds or segments appear (in a word or in a syllable, the nature of its phonetic environment) altogether form what is called distribution.

The best way to know whether two sounds that are similar differ phonetically or phonologically is to use the techniques of *paire minimale*.

3.2   Paire Minimale

A pair is a group of two forms that have different meanings and differ by only one segment in the same position in the word.

Examples:

a.   [ose] hausser   differs from [oze] oser
b.   [diR] dire   differs from [IiR] lire
c.   [fɛ:t] fête   differs from [tɛ:t] tete
d.   [tabl] table   differs from [kabl] cable

In those examples, [ose] and[oze], [diR] and [IiR],
[f :t] and [t: t], [tabl] and [kabl] form respectively une paire minimale.
In [ose] and [oze], /s/ and /z/ are distinct phonemes, since both forms have different meanings altogether.

Note that the same goes for the other paires minimales: /d/ and /1/, /f/ and /t/, /t/ and /k/ are distinct phonemes.

3.3   Répresentations des Paires Minimales

You should note that paires minimales are established based on phonetic transcription and not on orthographic transcriptions. For instance, in the examples above, [oze] is written oser, [kabl] is written cable, whereby letters s and c become respectively phonemes /z/ and /k/.

In other words, you must always do the phonetic transcription of two words in order to know whether or not the said words can form a paire minimale.

4.0   CONCLUSION

In this unit, you have learnt what is called segmental distribution in phonology, with examples in French. You have also learnt what is called paire minimale and how it is represented.

5.0   SUMMARY

This unit has taught you to know and note that the context in which sounds are used are very important, in the sense that they determine

whether or not two particular sounds are distinct phonemes.

6.0   TUTOR-MARKED ASSIGNMENT

1.   What is segmental distribution?
2.   Why do you have segmental distribution?
3.   What is paire minimale?
4.   Give five paires minimales in French?
5.   What do you do to determine a paire minimale?
6.   Why do you have to transcribe phonetically a word or group of words before talking of distribution?
7.   Find some paires minimales to oppose the following phonemes: /b/, /s/, /o/, /u/ and /e/.

7.0   REFERENCES/FURTHER READING

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UNIT 2   ALLOPHONES ET DISTRIBUTION COMPLEMENTAIRE

CONTENTS

1.0   Introduction
2.0   Objectives
3.0   Main Content
      3.1   Phonemic Representations
      3.2   Allophones
      3.3   Les Variantes Libres
      3.4   Les Variantes Conditionnées
4.0   Conclusion
5.0   Summary
6.0   Tutor-Marked Assignment
7.0   References/Further Reading

1.0   INTRODUCTION

In this unit, you will learn the function of a phoneme in communication: the distinctive function according to which an abstract unit known as phoneme corresponds to various representations depending on the context.

2.0   OBJECTIVES

At the end this unit, you should be able to:

•   Know the various representations of different phonemes placed in particular contexts (that is what is called segmental distribution).

3.0   MAIN CONTENT

3.1   Phonemic Representations

Here, you should note that there are three types of phonemic representation called variantes: les allophones; les variants libres and les variantes conditionnées.

3.1   Les Allophones

Allophones are various phonetic representations of a phoneme. In other words, a phoneme is articulated differently depending on its environment.

For example, in French, /R/ is pronounced 3 different ways: [R], [r] or [ʁ]depending on its position amidst other sounds in a word. [R], [r] and [ʁ] will be called allophones of the same phoneme, hence you have:

/ R /

[R]   [r]   [ʁ]
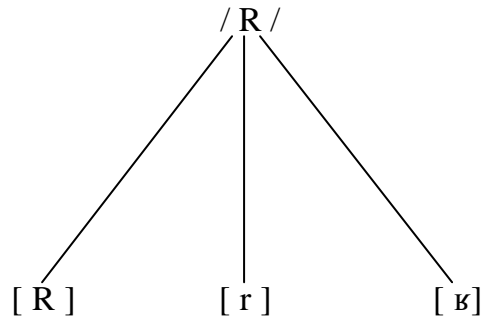
## 3.3   Les Variantes Libres

Variantes libres are interchangeable allophones that are said to be in free variation. For example, the consonant [R] in Paris can be pronounced either as a dental [r]   or as a uvular   [R] :   both seem apply without any rule.   [R] and [r]   will therefore be said to be variants libres of the phoneme /R/.

/ R /

[r]   [ʁ]
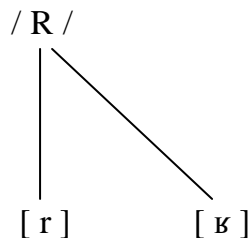
3.4   Les Variantes Conditionnées

Variantes conditionnées are allophones that are not in free variation; their distribution is regulated: some appear in a given phonetic context and the other in another entirely different phonetic environment. Such allophones will be said to be in distribution complementaire. For example, phoneme /s/ is pronounced [z] when it is between two vowels, and it is pronounced [s] in the other contexts. This is represented as follows:

/S /   Phoneme

[Z]   [s]
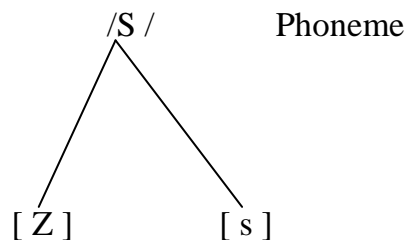
Allophones eu distribution complémentaire

4.0   CONCLUSION

In this unit, you have learnt the various phonemic representations in French phonology, and how each representation works in the French sound system. You have also learnt how each representation is called in technical terms.

5.0   SUMMARY

With this unit, you become familiar with the technical terms used for phonemic representations in the French language. You are to use those technical terms as appropriate whenever you find them, and you should be able to apply them where and whenever necessary.

6.0   TUTOR-MARKED ASSIGNMENT

1.   Consider the following words: assez; asile; série. Study consonant [s] in the 3 different environments. Give the correspond phonemic representations.
2.   What is variante in French phonology.
3.   What is variante libre?
4.   What are allophones?
5.   When are allophones in distribution complementaire?
6.   Give examples of such allophones (in 5) in French.
7.   Are there such phonemes in your mother tongue?

7.0   REFERENCES/FURTHER READING

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UNIT 3 LES TRAITS PHONOLOGIQUES

CONTENTS

1.0   INTRODUCTION

In this unit you will learn what is called phonological features, especially as applied to French phonology. You will also learn the different features that exist for French sounds.

2.0   OBJECTIVES

At the end this unit, you should be able to:

•   describe a phoneme by its appropriate characteristics known as features; and
•   identify a sound, giving its phonological features, and make a difference between features of the two categories of sounds in French-consonant and vowels.

3.0   MAIN CONTENT

3.1   Phonological Features

Phonemes are described according to their features.

3.2   Definitions

3.2.1 What is a Feature?

A feature is a minimal phonetic unit contained in a matrix that defines a segment. If a segment has a feature, it is marked (+) and if it does not have the feature, it is marked (-).

3.2.2 Distinctive Feature

A distinctive feature helps to identify minimal pairs. For examples in French, you have the following as distinctive features:

-        Voiced as opposed to voiceless
-        Oral as opposed to nasal
-        The different places of articulation of sounds, etc.

3.2.3 Segmental Matrix

A matrix is the putting together of all the features that characterise a given segment. Taking phonemes /u/ and /m/ as examples, you have the following as their respective matrix:

/u/   /m/

-	Consonant
+	vocalique
+	haut
+	arrondi
-	bas

+	consonant
-	vocalique
+	labial
+	voisé
-	nasal

Fig. 1: representation of matrix of /u/ and /m/

3.3   Phonological Features of Consonants

French consonants have each a matrix of features that characterise them. All the features are put together in a table as shown below:

	p	t	K	g	f	s	ʃ	v	z	
[Syllabique]	-	-	-	-	-	-	-	-	-	-
[consonant]	+	+	+	+	+	+	+	+	+	+
[antérieur]	+	+	-	-	+	+	-	+	+	-
[postérieur]	-	-	+	+	-	-	-	-	-	-
[arrondi]	-	-	-	-	+	+	+	+	+	-
[nasal]	-	-	-	-	-	-	-	-	-	-
[continu]	-	-	-	-	+	+	+	+	+	+

3.4 Phonological Features of Vowels

The phonological features of vowels are as follows:

	i	e	ɛ	a			œ	ə	u	ɛ	ă	œ	ə
[Syllabique]	+	+	+	+	+	+	+	+	+	+	+	+	+
[consonant]	-	-	-	-	-	-	-	-	-	-	-	-	-
[antérieur]	+	+	+	+	+	+	+	-	-	-	-	-	-
[postérieur]	-	-	-	-	-	-	-	+	+	-	-	-	-
[arrondi]	-	-	-	-	+	+	+	+	+	-	-	+	+
[nasal]	-	-	-	-	-	-	-	-	-	+	+	+	+

3.5 Vocabulary

You have learned the technical terms used in French phonology, especially with regards to this unit. Below is the list of words in form of lexicon (English - French):

English   French
- *a feature*   *un trait*
- *phonological features*   *les traits phonologiques*
- *segmental matrix*   *une matrice segmentale*
- *a segment*   *un segment*
- *distinctive features*   *les traits distinctifs*
- *front*   *anterieur*
- *back*   *posterieur*
- *+ voiced*   *voisé*
- *voiceless*   *mon voisé*

4.0 CONCLUSION

In this unit, you have learnt the various features used in describing phonemes with the necessary technical terms needed for that purpose.

5.0 SUMMARY

This unit has acquainted you with the way to describe a sound as phoneme, given all its characteristics termed features. You also become familiar with the way to differentiate between phonemes, using their respective phonological features.

6.0   TUTOR-MARKED ASSIGNMENT

1.   Put the following segments in a table and specify for each the phonological features:
      a.   1,r,n,m
      b.   f,z,R,s
      c.   b, d, k, p
      d.   I, ɥ, u
      e.   œ, ɥ, i,
      f.   u, ə, o, a
2.   List all the segments corresponding to the following description:
      a.   [+ syllabique; - consonantique]
      b.   [+ voice]
      c.   [+ syllabique; + arrondi]
      d.   [+ syllabique; - consonantique, + arrondi, + nasal].
3.   Identify minimal pairs (paires minimales) in the list of words below:
      a.   loin, toin, soin, coin, point
      b.   classe, glace, place, passé, tasse, trace, grasse
      c.   graisse, grosse, glace, grasse, grise, glisse
      d.   gros, eau, rot, beau, peau, seau, taux, dos, haut, fléau.

7.0   REFERENCES/FURTHER READING

Alo, P. O. (1999). *Elements de Base en Phonétique et le Phonétisme du Français.* Lagos: Rothmed International Ltd.

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UNIT 4   LES TRAITS DISTINCTIFS

CONTENTS

1.0   INTRODUCTION

This unit will introduce you to the distinctive features of sounds in the French language sounds system. You will learn the various features as they apply to different categories of sounds in the language.

2.0   OBJECTIVES

At the end this unit, you should be able to:

-     state what distinctive feature is all about; and
-     identify the various distinctive features, compare and classify different phonemes according to their features.

3.0   MAIN CONTENT

3.1   Definition

In the last unit, you learnt the role of a distinctive feature in a given language. As a definition, you can say that distinctive features are those features that distinguish phonemes between themselves. In other words, distinctive features oppose a particular phoneme to the other phonemes in the language.

Also note that the number of distinctive features is less than the number of phonemes in a language.

3.2   The Various Distinctive Features in French

Here, you will learn the various distinctive features existing in the French language. Among those features, you have:

- *le voisement (voisé versus non voisé)*
- *la nasalité (oral versus nasal)*
- *l'antériorité (antérieur vesus postérieur)*
- *l'arrondissement (arrondi versus non arrondi)*
- *les différents lleux d'articulation.*

3.2.1 Le Voisement

This is a distinctive feature opposing a voiced phoneme to a voiceless phoneme. Examples:

Phonemes /b/, /d/, /g/ are voiced (voisé), while phonemes /p/, /t/, /k/ are voiceless (non voisé). The two categories of phonemes are opposed by the feature of voice 'voisement'.

3.2.2 La Nasalité

This is a feature opposing oral phonemes to nasal phonemes. Examples:

Phonemes /i/, /a/, /o/ are oral, while phonemes /I/, /□/ /õ/ are nasal. The distinctive feature of nasalité opposes both categories.

3.2.3 L'antériorité

The feature opposes front (anterieur) phonemes to back (postérieur) phonemes. Examples:

Phonemes / i/, /e/, /ɛ / are front vowel phonemes, while /u/, /o/, /ə/ are back vowel phonemes. The distinctive feature antériorité opposes both categories.

3.2.4 L'arrondissement

This feature oppose round (arrondi) phonemes to non-round (non arrondi) ones. Examples:

Phonemes /i /, /e/, /ɛ / are non-round vowel phonemes, while / *u* /, / /, /œ/ are round vowel phonemes. The distinctive features or roundness is used to oppose the two categories of phonemes.

3.2.5 Les Lieux d'articulation

You should also learn that the different places of articulation are used as distinctive features. For instance, labial phonemes are opposed to velar phonemes in French as in English. Examples:

Phonemes / p/, /b/, /m/ are labial phonemes, while phonemes /k/, /g/,/w/ are velar phonemes. The first category of sounds (labial) are characterised by the feature [+ labial]. The distinctive feature [labial] is used to oppose the two categories.

4.0   CONCLUSION

In this unit, you have learnt the different distinctive features of phonemes in French. Examples are given to illustrate each of the features commonly used in the phonological description of sounds in the French language.

5.0   SUMMARY

With this unit, you now know how to define a distinctive feature. You also know now how to identify the various distinctive features that exist in the French language, using some examples to demonstrate their application.

6.0   TUTOR-MARKED ASSIGNMENT

1. Trouvez des traits distinctifs utilisés en anglais, mais absents en Français, et vice-versa.
2. Trouvez les traits distinctifs des phonémes vocaliques du Français!
3. Trouvez les traits distinctifs des phonémes consonantiques du Français!

7.0   REFERENCES/FURTHER READING

Alo, P. O. (1999). *Elements de Base en Phonétique et le Phonétisme du Français.* Lagos: Rothmed International Ltd.

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UNIT 5   LES REGLES PHONOLOGIQUES

CONTENTS

1.0   Introduction
2.0   Objectives
3.0   Main Content
        3.1   Règles Dérivationnelles
                3.1.1   Règles d'épenthèse
                3.1.2   Règles d'élision
                3.1.3   Règles d'assimilation
        3.2   Les Régles Transformationnelles
                3.2.1   Règles de Liaison
                3.2.2   Règles de Nasalisation
4.0   Conclusion
5.0   Summary
6.0   Tutor-Marked Assignment
7.0   References/Further Reading

1.0   INTRODUCTION

In phonology, there are laid-down rules guiding the proper functioning of French sounds in speech.   This unit will acquaint you with the main phonological rules in the French.

2.0   OBJECTIVES

At the end this unit, you should be able to:

•   identify the types of phonological rules that exist in the French sound system; and
•   apply those rules when and where necessary.

3.0   MAIN CONTENT

You have various types of phonological rules in the French sound system.

Those rules are in two categories:

(i)   les règles dérivationnelles
(ii)   les règles transformationnelles

3.1 Les Règles Dérivationnelles

There are three main derivational rules in French. Below is the description of each of them:

3.1.1 Régle d'epenthése

This rule consists in inserting a segment in a given context, and it is represented as follows:

Ø → B/C - D (this simply means that a segment B is inserted between C and D). Examples:

- Comment va-elle? In this example, it is not phonologically right to leave the a of va and the e of elle as they are, because they constitute what is called hiatus. A hiatus is a gap between two vowels which needs to be filled. A consonant type is usually used to fill the said gap. That consonant is termed consonne épenthétique. In the example above, t is the right consonne epenthetique to use; so it becomes: comment va-t-elle?. Other examples:

(a)   a-il mangé   becomes   a-t-il mange?
(b)   mange-il bien?   becomes   mange-t-il bien?

3.1.2 Règle d'élision

This rule consists in canceling a segment in between two other segments. It is represented as follows:

A → Ø / C - D (A is the segment cancelled between C and D)

Example:

Département is pronounced with the second e cancelled; thus you have depart-ment. Also, the ə at the end of some words are usually cancelled, as in the examples below:-

*Table/ tablə/.............*t-a-b-l
*Vide / vidə/ ……………*v-i-d
*Livre/livRə/……………*l-i-v-R

3.1.3 Règle D'Assimilation

This rule describes a phonetic change undergone by a segment under the influence of another segment. You should note that assimilation

can occur backward as well as forward, as shown in the examples below. When assimilation occurs backward, you talk of assimilation regressive; when it occurs forward, you talk of assimilation progressive. Examples:

(a)   *Assimilation regressive* (occurs backward)

Absorber is pronounced a-p-s-ə-R-b-e. In this example, /b/ is a voiced stop which became voiceless /p/ under the influence of the voiceless sound /s/ that follows it. Other examples are: / ə- p-s-ɛ-R-v-e/ for observer /m-e-t-s-i-n/ for medicine.

(b)   *Assimilation progressive* (occurs forward)

Il n'a pas is pronounced il-n-ã-pa (the a of n'a has been influenced by the nasal consonant n, and so, changed from an oral vowel to a nasal one.

3.2 Les Règles Transformationnelles

There are two main transformational rules in French.

3.2.1 La Règle de Liaison

This rule consists in moving the final consonant of a word to the beginning of the following word. It is represented as follows: C##V → ##CV

Examples:
Les enfants   >   l-e-z-ã-f-ã
Bon ami   >   b- č -a-m-i
Mon ami   >   m-č -a-m-i

3.2.2 La Règle de Nasalisation

This rule consists in nasalizing an oral vowel which placed before a nasal consonant. It is represented as follows:

V → {+nasal} / - C {+ nasal } #

Examples:

Mon ami /mən ## ami/ m- ə -n-a-m-i

4.0   CONCLUSION

In this unit, you have learnt the main phonological rules that are commonly used in the French sound system. Take note and put them to practice where necessary.

5.0   SUMMARY

With this unit, you now know what a phonological rule is, and how it is used in context.   You have also learnt the various types of rules and their respective applications in the French language system.

6.0   TUTOR-MARKED ASSIGNMENT

1.   What is a phonological rule?
2.   Name the existing rules in French sound system.
3.   Study the following words and pronounce each one, apply the correct phonological rule in each case:
   -   observateur
   -   le maître de parole
   -   je veux te le dire
   -   que fais-tu maintenant?
   -   Annuel
   -   Analphabet.

7.0   REFERENCES/FURTHER READING

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