

The Role of Distinctive Feature Analysis in the Teaching of Pronunciation

**Assistant Lecturer
Aoda Kadhim Abid
University of Al-Muthanna / College of
Agriculture**

الخلاصة:

يتناول هذا الموضوع دور نظرية الصفة المميزة في تعليم / تعلم التلظف في اللغة الانكليزية . انها تساعد لكي توضح دور هذه النظرية وانواعها في التدريس . ان لهذه الدراسة جانب عملي يتناول كيف يتعامل طلبة المرحلة الثالثة في اقسام اللغة الانكليزية مع هذه النظرية وكيف تساعدهم في تعلم الوحدات الصوتية (فونيمات) ومجاميع الوحدات الصوتية . لقد اثبتت هذه الدراسة ان الطلبة يعانون كثيرا في تعلم هذا الموضوع كما ان هذه النظرية لها دور كبير في تعلم الوحدات الصوتية (الفونيمات) ومجاميع الوحدات الصوتية .

1- Introduction

It is difficult to make a comprehensive survey phonemic theoretical frame work. The account of distinctive feature theory given here makes no attempt to keep apart the different historical

phases of its development. According to the theory of classical American phonemics, phonemes are the minimal phonological elements of language systems. A very different view was taken by “Trubet Zkoy”, one of the founder members of the Prague school of linguistics, which developed its own version of desassurean structuralism and was very influential, especially in phonology and stylistics, in 1930.

This study aims at:

- 1- Concentrating our attention in this study upon the key notions of the phonemes.
- 2- Explaining the distinctive-feature theory.
- 3- Classifying the distinctive-feature theory according to Jakobson, Fant and Halle who found or produced a comprehensive theory of the distinctive features.
- 4- Showing how to use the distinctive feature in teaching of pronunciation.

Procedures in this study are:

- 1- Giving a simple detail about the distinctive feature theory.(Theoretical study of the distinctive features)
- 2- Making a practical part of this study, how to use this theory “distinctive feature” in teaching of pronunciation(to make a test)

It is hypothesized that this study will be prominent and important for the college students to know the distinctive feature theory and how to use in teaching of pronunciation.

This study will be valuable

- Theoretically: It is to pinpoint a theoretical background of the distinctive feature theory and its classification.
- Practically: It is to show the use of this theory “distinctive feature” in teaching of pronunciation.

2-Distinctive Feature Theory

Distinctive feature may be seen either as a part of the definition of phonemes, or as an alternative to the nation of the phoneme as follows.

The first of these views can be found in the approach of the Prague school, where the phoneme is seen as a bundle of phonetics DF.(a group of phonemes such as (/p/,/b/,/t/ ,/d/,/k/,/g/)for example. The English phoneme /p/ can be

}

seen as result of the combination of the features of bilabiality, voicelessness, plosiveness, etc.

/p/ = { /+bilabial, /-voiced, /+plosive (Lynos, 1985:88)

In distinctive feature theory of phonology, however, the phoneme is not considered to be a relevant unit of explanation symbols such as p, b, etc... are seen simply as convenient and abstract abbreviations for. Particular sets of features. So, it is the features which are the minimal units of phonological analysis, not the phonemes. (2) (Crystal, 1987, 68).

2-1 Classification of Distinctive Features

Although the distinctive features approach to speech analysis is widely followed, but there are still great differences in thinking about what is the most valid set of distinctive feature theory. There are many sets of distinctive features have been devised by so many phonologists and inevitably, it is hardly enough, if not impossible, to comprise such sets in detail. So, I will just mention the most familiar sets of distinctive features with a simplified indication of the criteria of classification of each (Iepschy, 1972:98)

A. Jakobson, Fant, Halle:

Roman Jakobson, Fant, and Halle, M found a comprehensive theory of the distinctive features. They are linguistics. For Jakobson considered as the most important in international linguistic thought to the theories of the Prague school (Ibid, 92).

The underlying criterion of the theoretical distinction between language appositions, is the acoustic qualities of the speech signal since what one perceives is an auditory pattern, not a succession of articulator movements. This system devised by Jakobson, Fant, and Halle can be represented by a condensed form as given below:

2-2 Fundamental Source Features

The fundamental source features are:

1- Vocalic VS. non vocalic

This is a feature which helps differentiate vowels from consonants, although it is not identical with the traditional vowel. Consonant distinction. Vocalics are sounds which are well defined resonance patterns.

2- Consonant at vs. non consonantal:

Low versus high total energy; presence versus absence of an obstruction in the vocal tract. (Ibid, 99)

3- Compact vs. diffuse

Higher versus lower concentration of energy in a relatively narrow central region of the spectrum, and increase versus decrease of the total amount of energy; forward. Flanged versus backward. Flanged; the vocal tract can have a horn-shape versus a Helmholtz resonator-shape (large cavity with a small opening to which a neck may be attached).

4- Tense vs. Lax :

Tense vowels are larger+ stronger. Tense consonants are longer+ have greater plosive strength. This feature helps distinguish [l] from [ɫ] and [p] from [b] for instance.

5- Voiced vs. voiceless:

Presence versus absence of periodic low frequency excitation; presence versus absence of periodic vibration of the vocal cords.

6- Nasal vs. Oral

Nasality is characterized by typical resonance. "anti resonances"; Nasal resonance is distinctive only in the case of [m],[n],and [ŋ] in English.

7- Discontinuous vs. continuant :-

Silence followed and / or preceded by spread of energy over a wide frequency region versus absence of abrupt transition between sound and such silence ; presence versus absence of a rapid closure and/or opening of the vocal tract , or of one or more taps stops and affricates versus continuants , and flapped or trilled liquids versus continuant liquids.

8- Strident vs. mellow :

Higher versus lower intensity noise , rough edged (with supplementary) obstruction creating edge effects) versus smooth edged, labiodental , sibilant , uvular versus bilabial , interdental, velar constrictives; affricates versus stops.

9- Checked vs. unchecked:

Higher versus lower rate of discharge of energy; presence versus absence of compression of the glottis.

10- Grave vs. acute:

Concentration of energy in the lower versus upper frequencies of the spectrum; peripheral versus central constriction; velar, labial versus palatal , dental consonants , and back versus front vowels.

11- Flat vs. plain :

Flattening; it is said, manifests itself by a down word shift of a set of formants. (Resonances). For example, lip-rounded + non-lip rounded vowels are apposed by this feature.

12- Sharp vs. plain

Sharp vowels are those with “a slight rise of the second formant”. The acoustic effect is that produced by patalization. (Jakobson , 1975:85)

2-3 Redundant vs. Contrastive Features:-

Since some features can be automatically predicted from some others, it is not necessary to mention such features since they are implicits within the mentioned ones. Then [-+ voice] is Redundant in sonorants, since they are predictably [+voice], and as a result it is totally legitimate to signalize such features as non distinctive. Furthermore, in many languages, obstruents (sound involving a construction which

impedes the flow of air through nose or mouth) may characterize with [+voice] or [- voice], like [p],[b],[z], etc.... but at the same time in those languages, the feature [-+ voice] will be contractive (or distinctive) in the class of obstruents, while the same features [-+ voice] will be redundant in the class of sonorants (or non distinctive) , since such class of sounds is always voiced [+ voice] . (7) (Ward, 1967:115)

2-4 Present vs. Absent Features

The type of classification of features has a close relation with under specification theory. The most important question which is relevant in such context is that “whether redundant features should be included in the underlying representation of morphemes and if not, when they should be supplied? (Hoven, 1998:24).

The most important criterion of such classification is based upon the “simplifying effect that the absence of a feature has no the formulation of phonological generalizations. As far as we are concerned with the Redundant and contrastive feature, it is proposed that only contrastive features are specified in underlying representation of morphemes since its vital effect in distinguishing one morpheme from another (Tiffany, 1987:117).

3-Distinctive Feature in the Teaching of Pronunciation

The material to be taught includes the mastery of the sounds and sound features of English, which are classified as follows:

1-Segments include :

a- Vowels :-

- 1- /i/ as in big / big /
- 2- /i:/ as in beat / bi:t /
- 3- /e/ as in bed / bed /
- 4- /a/ as in cat / kat /
- 5- /a:/ as in cart / ka:t /
- 6- /o/ as in pot / pot /
- 7- /o:/ as in port / po:t/
- 8- /u/ as in put /put/
- 9- /u:/ as in moon /mu:n/
- 10- /ʌ/ as in cut /kʌt/
- 11- /ɜ:/ as in bird /bɜ:d/
- 12- /ɚ/ as in Thomas /tomɜs/

b- Consonants:-

/b/ as in big /big/

/p/ as in pig /pig/

- /d/ as in do /du:/
/t/ as in ton /t^n/
/g/ as in go/gou/
/k/ as in kite /kait/
/f/ as in four /fo:/
/v/ as in very /very/
/ θ / as in three / θri:/
/ / as in the / /
/ s/ as in see / si:/
/ Œ / as in she / Œi:/
/ 3/ as in measure / me3ð/
/h/ as in he /hi:/
/m/ as in me /mi:/
/n/ as in no /nou/
/ ŋ/ as in thing / θiŋ/
/l/ as in look /luk/
/r/ as in red /red/
/ts/ as in chair / tsð:/

/ dʒ / as in Jaw / dʒo: /

/w/ as in we /wi: /

/ j / as in yet /jet/

c- Combinations of vowel:-

1-Triphthongs as in create / kri:ei / and going
/ gouɪŋ /

d- Diphthongs

/ei/ as in cake / keik/

/ai/ as in kite / kait/

/au/ as in cow / cau/

/ou/ as in coat / koat/

/oi/ as in oil /oil/

/i ð / as in beer / bið/

/ eð / as in bear / beð/

/ uð / as in sure / Œuð/

e- Combinations of consonants:

1- Initial

CCV as in play /plei /

CCCV as in spring / spring /

2- Medial :

VCCV as in ended / ended/

VCCCV as in prompted / prompted /

3- Final :-

VCC as in end /end /

VCCC as in ends / endz /

VCCCC as in texts / teksts / (Al-Hamash,1985:93-94)

It is necessary to distinguish between recognition of sound features and the production of such features. Recognition should always precede production, to be able to produce sounds accurately, the learner ought to recognize their features first. Emphasis should be placed on the distinctive features, i.e: the features that distinguish meaning. For example, the two sounds /p/ and /b/ are distinguished by two features. They are aspiration and voicing. Aspiration means that the /p/ is often produced with a puff of air while /b/ is produced without such a features. Voicing means that /b/ is produced with the vocal cords vibrating, while /p/ is produced without such feature.

In the teaching of the pronunciation of a word. Or a sound, the teacher should pronounce the material first.

The initial task should be to enable his pupils to observe the differences among sounds before asking them to actually pronounce them (Ibid, 97).

So this study will also include a practical one in the next paper in the use of the distinctive- feature theory in the teaching of pronunciation.

3-2 Sample of the Test:

We have selected a group of students for this test and they are ten students (five-boys and five girls)

3-3 Result Analysis

After examining the students the results are as follows:

Correct answers	Incorrect	Avoided
2	7	1

The table shows that incorrect answers are more than correct and avoided ones. The main reason beyond these answers is the way of teaching.

4-Conclusion

In English, the distinctive feature theory holds that, the sounds of speech are bundles of distinctive articulatory and acoustic features, that it is the feature and not the phoneme which is the ultimate discrete unit into which speech can be analyzed, and that the recognition of any given speech sound and depends upon a set of binary Judge mentis as to the presence or absence of those features which are distinctive to it .

According to the results of the test, the number of the incorrect responses is more than the correct ones. The students face difficulty in studying this topic. They do not know the meaning of the distinctive feature theory.

This is because they are lazy and they do not exert their efforts.

Appendix

Test-items

1- Complete the following lists with words forming minimal pairs(1) with the words listed :

a- /p/	/b/
Peak	-----
-----	-----
-----	back
Pea	-----
-----	bay
Port	-----
-----	bride
b- /t/	/d/
Tie	-----
-----	ladder
Writer	-----
-----	done

----- hard

Caught -----

1-Minimal pair is pair of words, phrases, sentences etc

Similar in every phonological aspect one. E.g.:

This is a hat.

This is a hut.

c-	/f/	/v/
	Fan	-----
	-----	veil
	Fine	-----
	Off	-----
	-----	halve
d-	/ts/	/d/

----- Jeep

Riches -----

Choke -----

----- Jest

Chain -----

e-	/s/	/z/
----	-----	-----

Race -----

-----	falls
Buses	-----
-----	plays
Cease	-----
-----	cause (12) (Majeed and Al-Shaqib, 1997:48)

Bibliography

- 1- Al-Hamash, Kh.(1985).Principles and Techniques of teaching English as a second language. University of Baghdad .
- 2- Crystal,D (1987).A Dictionary of linguist is and phonetics. London university press .
- 3- Hoven, C. Gand Jacobs,H.(1998). Understanding phonology. Oxford university press.
- 4- Jakobson,Fant and Halle. (1975). Preliminaries to speech analysis. The Distinctive feature and their correlates. Great Britain university press.
- 5- Lepschy , C,G (1972) , A survey of structural linguistics. Faber and Faber limited. London.
- 6- Lyoos, J. (1985). Language and linguistics. Oxford university press.
- 7- Majeed , Z. and El-Shayib , M. (1997). English pronunciation for students teachers. University of Baghdad: Al-Safadi press.
- 8- Tiffany , W. and Carell , J. (1987). Phonetic theory of Application . London : Longman.

9- Ward ,I. (1967) .The phonetics of English. London : Longman

Abstract:

This study deals with the role of distinctive feature theory and its use in the teaching of English pronunciation. It helps to show the role types of such an analysis. This paper has a practical side which deals with how third year college students / department of English deal with and are helped by such an analysis in the learning of phonemes and phoneme clusters. The study proves that the subject suffer a great deal in the teaching / learning of this topic and that it is important for learning English phoneme and phoneme clusters.