

## The Perception and Production of Prosodic Features by Iraqi EFL Learners

Assist. Lecturer Assim Abdalrahman Hammadi Al-Safi  
College of Arts – University of Mosul

عملية إصغاء ولفظ الصفات التنغيمية من قبل متعلمي اللغة الانكليزية العراقيين

م.م. عاصم عبد الرحمن حمادي الصافي

### 1.1. Abstract:

This study discusses the ability of Iraqi EFL learners to perceive and produce the prosodic features of English represented in intonational contours, manifested in pitch change at the tonic syllables, and marking the prominent syllables in English utterances. This is achieved through getting the EFL learners listen to English utterances pronounced by native speakers of English and try to process and produce the prosodic features present in each utterance with a simulation strategy. The performance of each learner is analyzed acoustically by Speech Analyzer 3.0.1 (computer software) and compared with the original English utterances pronounced by native speakers of English which have already been analyzed acoustically. Matching the learners' analyses with those of the native speakers' is important in recognizing and identifying how efficiently each learner has perceived and produced the prosodic features embodied in the English utterances.

## المستخلص

تتناقش هذه الدراسة مدى قدرة متعلمي اللغة الانكليزية العراقيين على استماع ولفظ الصفات التنغيمية الانكليزية المتمثلة في المجاميع التنغيمية والظاهرة في تغيرات طبقة الصوت في المقاطع الأساسية، بالإضافة إلى تثبيت المقاطع الأبرز في الجمل الانكليزية. تتم هذه العملية من خلال قيام متعلمي اللغة الانكليزية بالإصغاء إلى جمل انكليزية يلفظها متكلمون تكون اللغة الانكليزية لغتهم الأم ومن ثم لفظ الصفات التنغيمية الموجودة في كل جملة بطريقة المحاكاة. بعد ذلك يتم تحليل أداء كل متعلم باستخدام برنامج حاسوبي يدعى (محلل الأصوات) يظهر الأداءات على شكل مرسومات صوتية ومقارنتها بالتحليلات الصوتية للجمل الانكليزية التي لفظها المتكلمون الانكليز. تكتسب عملية المقارنة بين أداء المتعلمين وأداء المتكلمين الانكليز أهمية كبرى في الوقوف على مدى قدرة كل متعلم على الإصغاء إلى الصفات التنغيمية في الموجودة في الجمل الانكليزية ومن ثم لفظها بشكل مباشر.

## **Introduction:**

The present study aims at (1) stating the problems encountered by EFL learners in perceiving and producing English utterances in a way similar to the native speaker's performance of adopting the same prosodic strategies in expressing oneself for the sake of achieving communication; (2) identifying the similarities and differences between the learners' performances and the native speakers' through matching the acoustic analyses of each group against each other; and (3) attempting at suggesting some pedagogic solutions to avoid the errors committed by Iraqi EFL learners in producing the English prosodic features.

The candidates representing the samples of this research are seventeen (male/female) fourth year class undergraduate students. The reason for choosing such samples is that the fourth year class students have been exposed to lectures in English for more than three years in the Department of English. The researcher assumes that their performance will be more efficient in processing English contours than the performances of the learners in other classes. Moreover, the researcher has taken into account two significant factors in choosing the samples: (1) the candidates are approximately of equal ages, and (2) that the candidates have equal academic exposure to English in their study at the department. The variance of these factors may possibly have some negative influence on the candidates' performance and break the consistency of the study. It is worth noting that none of the candidates has any hearing or vocal impairments.

Each candidate was isolated in a noise-free room and asked to listen to eight individual utterances pronounced by native speakers of English once at a time using headphones. After listening to each utterance for one time, the candidate was asked to immediately pronounce the utterance s/he had just heard in a similar way to the native speaker's of English concerning simulating the prosodic aspects inherent in each utterance. The candidate's performance was recorded by a digital voice recorder (GENX GDVR-901) set in front of the candidate in order to obtain the highest resolution of voice quality. Then, the recorded data were entered into

two computer programs: (1) The Gold Wave Digital Audio Editor: which purifies each utterance from any noise which may possibly accompany the process of recording, and (2) Speech Analyzer (3.0.1) in order to extract the acoustic data as spectrographs for each utterance. The spectrographs of the candidates' performances were matched against the native speakers' spectrographs in order to discuss them both.

## **Preliminary:**

### **1.1. Definitions of Intonation:**

Intonation has been given several definitions according to its purpose in speech. T'Hart *et al* (1990: 10) define intonation as an "ensemble of pitch variations in the course of an utterance". This definition equates intonation with "speech melody". Wennerstrom (2001: 17) relates pitch to intonation as conveying meaning and says that intonation is the pitch or "melody" of voice during speech adding that speakers, extensively using intonation, can manipulate their pitch on particular words, phrases, or even topic-sized constituents to convey meaning about relationships in discourse. The significant role played by intonation in achieving communicative purposes among people is emphasized by Nolan (2006: 433) in considering intonation a means for conveying information in speech which is independent of the words and their sounds focusing heavily on the modulation of pitch over the domain of the utterance. These definitions focus on the pitch modulations of variations as a cornerstone element in describing intonation as a suprasegmental system independent but imposed on the segmental elements, i.e. consonants and vowels. Manipulating the pitch variations, speakers are able to achieve successful communication as to express their feelings and attitudes in certain contexts where intonation is a decisive agent in fulfilling this goal. Roach (2009: 430) recognizes intonation as "variations in the pitch of a speaker's voice used to convey or alter meaning". He adds that intonation is described as representation of pitch movements and levels through which emotions and attitudes are signaled and expressed. O'Grady (2010: 3) points out that intonation has the

role of helping to segment a stretch of speech into meaningful utterances and to highlight the unity of segmental unit of speech.

## **1.2. Tone Group:**

Like other prosodic features, pitch patterns are said to be “suprasegmental” because they co-occur with strings of segments. Suprasegmental features are organized in units that range in length from one to about seven words, variously called tone groups, breath groups, sense groups, and information units (Snow and Balog, 2002: 1027). A “tone group” is also called “intonational phrase” as referring to a more or less continuous pitch contour with, at minimum, an initial key, a number of pitch accents, and a pitch boundary (Wennerstrom, 2001: 28). A “tone group” is further defined by Jeffries (2006: 86) as a unit for describing intonation which includes the whole of the section from one end of a moving tone to the next. Carr (2008) gives a similar definition for the tone unit calling it instead “intonation group”. According to him, intonation group is “a single word or sequence of words, which forms an intonational unit, containing a tonic syllable” (p. 78). Roach (2009: 43) suggests that for analyzing intonation, a unit generally greater in size than the syllable is needed, and this unit is called the “tone unit”. For the sake of consistency, the term that is adopted in this study will be “tone group”.

### **1.2.1. The Structure of the Tone Group:**

As mentioned above, the unit used to analyze the intonational system of language is “tone group”. This research adopts Roach’s (1983: 124) classification of the tone group which is divided into:

- a. Tonic Syllable (TS): is the syllable that carries the tone, It is considered the most important element since it is the element that carries pitch modulations or variations within an utterance. Added to that, the tonic syllable has a high degree of prominence which is a property of stressed syllables (ibid). Normally, it is the last stressed syllable in a tone unit (Kelly, 2001: 88), i.e. it will correspond to the last lexical item in the clause, or sometimes to the

head of the last clause element (Jeffries, 2006: 86). It is also called “nucleus” by Chun (2002: 16) as the “element in a group of words that receive the greatest stress or is given the most prominence”. The tonic syllable is the only obligatory element. It may be preceded or followed by one or more syllables.

- b. Head (H): is all that part that extends from the first stressed syllable up to (but not including) the tonic syllable (Roach, 1983: 123). It means that the head consists of all the syllables that precede the nucleus (Chun, 2002: 17).
- c. Pre-Head (PH): expresses any unstressed syllable(s) occurring before the first stressed syllable (Jeffries, 2006: 87). So a pre-head is found in two main environments: (i) when there is no head, i.e. no stressed syllable preceding the tonic syllable, and (ii) when there is a head (Roach, 1983: 124f).
- d. Tail (T): stands for any syllables between the tonic syllable and the end of the tone (Roach, 1983: *ibid*, 2009: 87).

The tonic syllable is the only obligatory element in the tone group and the other elements are optional. Thus, the structure of the tone group is:

(PH) (H) TS (T) (Roach, 1983: 124)

The following examples show the elements combining the tone group;

- (1) 'Give me ,those.
- (2) in an ,hour.
- (3) in a 'little 'less than an ,hour.
- (4) ,Look at it.
- (5) ,What did you · say?

In (1), the word “those” stands for the tonic syllable and the head is formed by two syllables: a stressed syllable, namely “Give” followed by an unstressed one, i.e. “me”. In (2), the head is absent and the word “hour” is the tonic syllable and the phrase “in an” is the pre-head. The phrase “in a” in (3) is the pre-head, “little less than an” represents the head, and tonic syllable is carried by the word “hour”. In (4) the tail comprises two unstressed syllables, namely “at it”, while in (5) it comprises two unstressed syllable: “did you” and one stressed syllable, namely, “say”. The raised dot “.” marks stress in a tail (Roach, 1983: 124).

### **1.2.2. Types of Tone Groups:**

Tone groups are of two types; simple and compound (Halliday, 1970: 5; Roach, 1983:123). Halliday views simple tone group as having “a tonic which extends from the tonic syllable right up to the end of the tone-group; and this may or may not be preceded by a pre tonic”. In addition, compound tone groups stand for those that contain more than one tonic (Halliday, 1970: 4-5.). The first tonic (major tonic) carries the new or important information while the second (minor tonic) indicates secondary or given information. For example:

(6) I shot Mike on the plain.

The first tonic represents the main or important information which is the action of “shooting Mike”. The second, which is the place of shooting, represents the minor information.

### **1.2.3. How to Delimit the Tone Group?**

Comprehending tone groups is significant in differentiating between written and spoken language. In the written form of language, tone-group boundary is often (not always) realized through punctuation marks such as commas, dashes, full stops, etc. (Collins and Mees, 2003: 120). However, in the spoken form, this issue is rather complicated to fulfill. Roach (1983: 124) points certain principles for this purpose. For longer stretches of speech to be analyzed, it is necessary to mark

places where tone group boundaries occur, that is, where one tone group ends and another begins, or a tone group ends and is followed by a pause, or a tone group begins following a pause. Moreover, it is claimed that within the tone group, speech has a regular rhythm, but that rhythm is broken or interrupted at the tone group boundary (ibid.).

Tone group boundary is realized by Roach (1983: p.166) as having “pause-type boundaries) symbolized by double vertical lines “||”, i.e. a longer pause, and “non-pause type boundaries” symbolized by a single vertical line “|”, i.e. a shorter pause. According to Chun (2002: 16), sense groups, equivalent to tone groups, are usually separated by pauses. However, there are many other cases where a boundary is perceived although a pause is missing. Grice and Bauman (2006: 4) assert that the most obvious indicators of boundaries between intonation units, i.e. tone groups are pauses. The longer the pause, the stronger the perceived boundary will be. They further show that a boundary can be detected when an abrupt change in pitch across unaccented syllables occur, i.e. an up or down jump in a pitch (ibid.).

### **1.3. Data Analysis:**

Before analyzing the learners’ performances, it is necessary to identify first the features of the utterances (henceforth Us) pronounced by the native speakers. Eight utterances, retrieved from the website: [/www.manythings.org/audio/sentences/](http://www.manythings.org/audio/sentences/), are selected to be the material of this study. Each is pronounced by a native speaker of English. Below are the utterances:

1. Tom is the captain of the baseball team.
2. The world doesn’t revolve around you.
3. Is the bath ready?
4. Does this book belong to you?

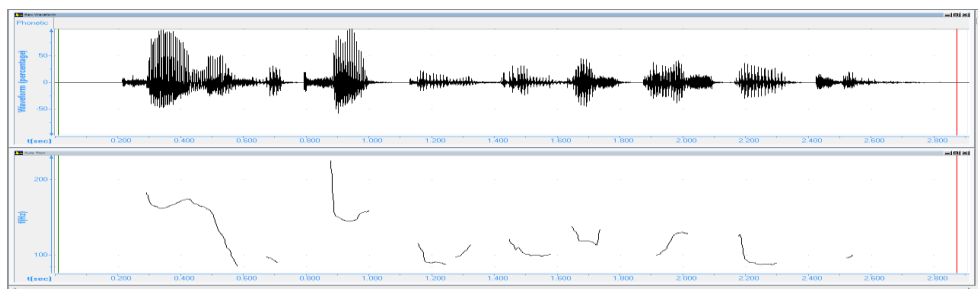
5. I can't understand his feelings.
6. Aren't you coming to the party tomorrow?
7. Why didn't you call me up?
8. Who is that man?

The researcher opted for choosing various types of utterances in order to detect as various performances as possible concerning the native speakers and to obtain different results from the analysis of candidates' performance as they listen to multiple types of English sentences. Each of the eight utterances is a simple sentence having one tone group only. The researcher find it important not to impose complex sentences with multiple tone groups on the candidates. It is felt that complex sentences might cause some confusing and inconsistent results, which is possibly a negative factor affecting the analysis of the data.

#### **1.4. Data Analysis Framework:**

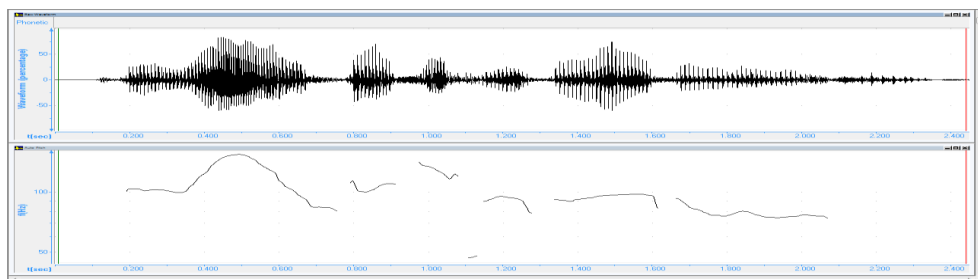
In Section 1.2.3., some of the elements involved in the description of tone group elements such as "pre-head", "head", "tonic syllable", and "tail" are addressed. It is felt that there should be a notation that can encompass all these aspects for the purpose of establishing a pedagogical framework. Accordingly, a notation for data analysis is suggested. The researcher believes that the notation below may help formulate a pedagogical framework that is capable of describing the intonational contours of the native speakers' performance as being the input to the candidates' performance and consequently considering the same notation in analyzing the candidates' output. As shown below, the tables can clarify the information the spectrographs give as is the case with pitch movements that show,

for example, the syllables that take prominence, or the pitch shifts occurring on the tonic syllables.



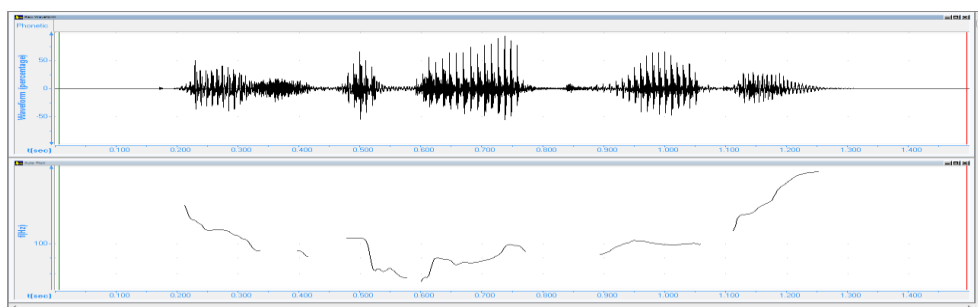
| TONE ELEMENTS |   |                |      |             |
|---------------|---|----------------|------|-------------|
| PRE-HEAD      | HEAD  | TONIC SYLLABLE | TAIL | STONE TYPE  |
| —             | <b>Tom</b> is the <u>captain</u> of this baseball | <u>TEAM</u>    | —    | <b>Fall</b> |

Figure (1): The notation of NS performance of U1.



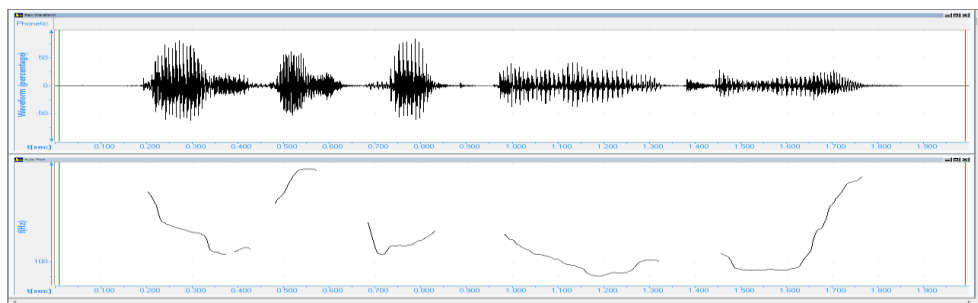
| TONE ELEMENTS |                         |                |      |           |
|---------------|-------------------------|----------------|------|-----------|
| PRE-HEAD      | HEAD                    | TONIC SYLLABLE | TAIL | ZONE TYPE |
| The           | world doesn't revolve a | <u>ROUND</u>   | —    | Fall      |

Figure (2): The notation of NS performance of U2.



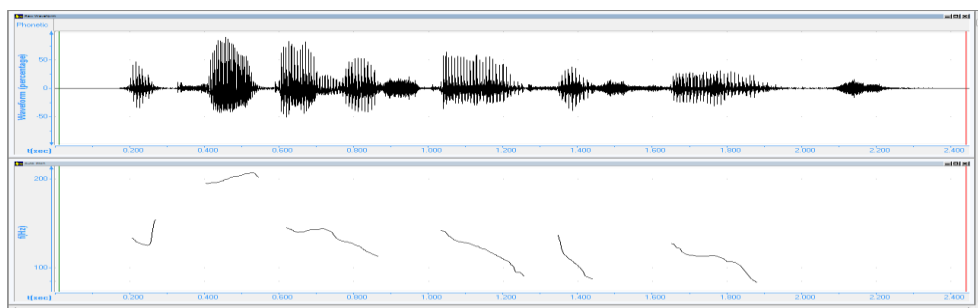
| TONE ELEMENTS |             |                |      |           |
|---------------|-------------|----------------|------|-----------|
| PRE-HEAD      | HEAD        | TONIC SYLLABLE | TAIL | ZONE TYPE |
| —             | Is the bath | <u>REA</u>     | Dy   | Rise      |

Figure (3): The notation of NS performance of U3.



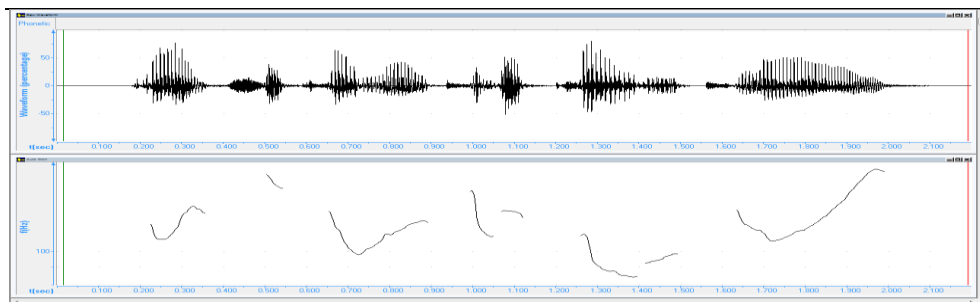
| TONE ELEMENTS |                                 |                |      |           |
|---------------|---------------------------------|----------------|------|-----------|
| PRE-HEAD      | HEAD                            | TONIC SYLLABLE | TAIL | TONE TYPE |
| —             | Does <u>this</u> book belong to | <u>YOU</u>     | —    | Rise      |

Figure (4): The notation of NS performance of U4.



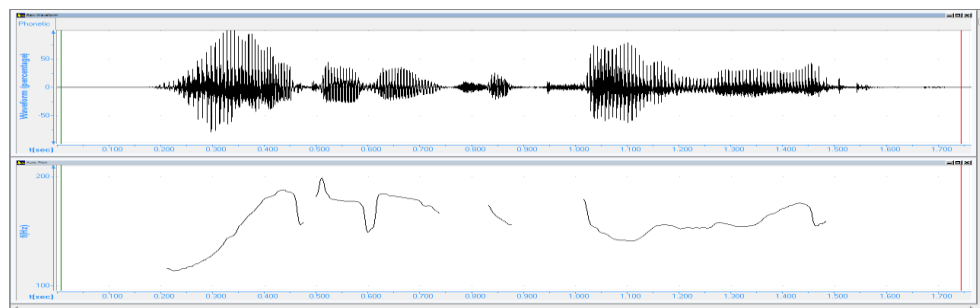
| TONE ELEMENTS |                             |                |      |           |
|---------------|-----------------------------|----------------|------|-----------|
| PRE-HEAD      | HEAD                        | TONIC SYLLABLE | TAIL | TONE TYPE |
| I             | <u>can't</u> understand his | <u>FEEL</u>    | ings | Fall      |

Figure (5): The notation of NS performance of U5.



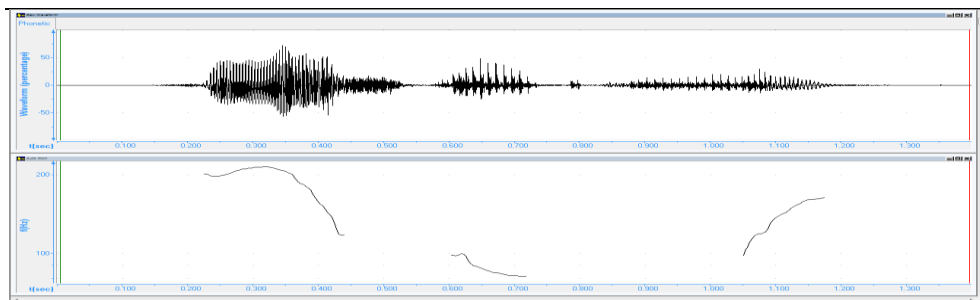
| TONE ELEMENTS |   |                |      |           |
|---------------|---|----------------|------|-----------|
| PRE-HEAD      | HEAD  | TONIC SYLLABLE | TAIL | TONE TYPE |
| _             | Aren't <u>you</u> coming to the <u>party</u> to | <u>MO</u>      | rrow | Rise      |

Figure (6): The notation of NS performance of U6.



| TONE ELEMENTS |                        |                |      |           |
|---------------|------------------------|----------------|------|-----------|
| PRE-HEAD      | HEAD                   | TONIC SYLLABLE | TAIL | TONE TYPE |
| _             | Why didn't you call me | <u>UP</u>      | _    | Rise-Fall |

Figure (7): The notation of NS performance of U7.



| TONE ELEMENTS |                    |                   |      |             |
|---------------|--------------------|-------------------|------|-------------|
| PRE-HEAD      | HEAD               | TONIC SYLLABLE    | TAIL | TONE TYPE   |
| _             | <b>Who</b> is that | <b><u>MAN</u></b> | _    | <b>Rise</b> |

Figure (8): The notation of NS performance of U8.

From a close look at Figures (1-8), many points can be detected:

- 1- The utterances include different types of tones ranging from simple tones as “fall” as in (1, 2, and 5), and “rise” as in (3, 4, 6, and 8), to “complex: fall-rise” as in (7).
- 2- The tone group elements, namely, “pre-head, head, tonic syllable, and tail” can all appear in some utterances such as (2 and 5), others lack pre-heads as in (3, 7, and 6) or tails as in (4), or both as in (1, 4, and 8).
- 3- All content words receive stress, i.e. pronounced with prominence as shown in the tables; the stressed syllables of the content words are written with bold letters. When a content word becomes more prominent than other words in the utterance, it is written with bold and underlined letters in order to show its significance among other words.

- 4- The spectrographs show that some function words can receive some prominence as being focused on and, therefore, they are pronounced with their strong forms rather than the weak one (see Roach, 1983: pp. 87, 92, 93). The function words receiving prominence are labeled in the above tables with bold letters only.
- 5- Both content and function words can receive the pitch shifts and become the TS's of the tone groups. The object pronoun “you” in (4), though a function word”, is the TS and thus receive a “rise” tone in a question. All the TS's are presented with capital, bold, and underlined letters.

The above notation, as mentioned earlier, will be used in analyzing the learners' performance.

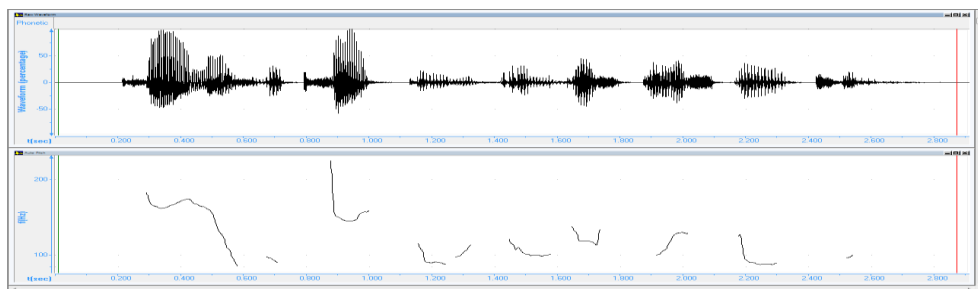
### **1.5. Candidates' Performances Analysis:**

There is a significant relationship between the two processes occurring in this study, namely, perception and production. The candidate (henceforth C) depends on the English native speaker's pronunciation to be the base on which perception takes place and then production, which is the candidate's task to carry out. Thus, the main point is to detect the similarities and differences; between the native speaker's pronunciation and that of the candidate, between what happens when perception starts and production ends. So, correct production entails correct perception and conversely inefficient productive performance indicates a defective perception. It is believed that the difficulties that the EFL students encounter can be detected through investigating the reasons behind the inefficient productive performance.

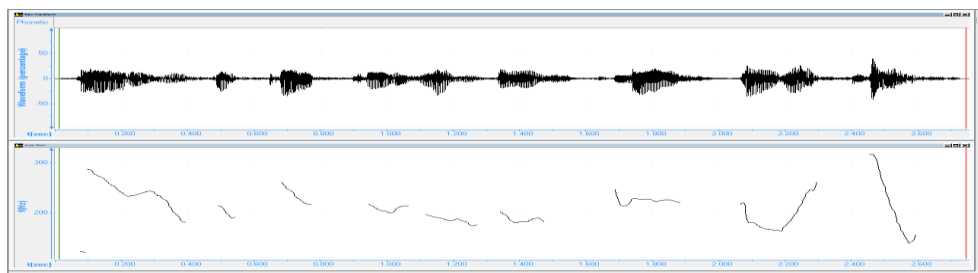
#### **1.5.1. Similar Performances between Native Speakers and Learners:**

On analyzing the candidate's performances, many aspects can be observed concerning their ability to perceive how the native speakers pronounce the

utterances and then how the candidates produce them in certain ways. It is necessary here to state that in many cases the candidates manage to pronounce the utterances as similarly as the way the native speakers do, especially in using the same tone type on the same tonic syllables (henceforth TSs) in addition to putting prominence on the same words that are given prominence by the native speakers. Figure (9) below shows that a “fall” tone rests on the last content word in U1 (i.e. Utterance No. 1) . Both spectrographs show similar key pitch level, viz. high and that prominence is imposed on the same words. Thus a common notation can be given below.



NS

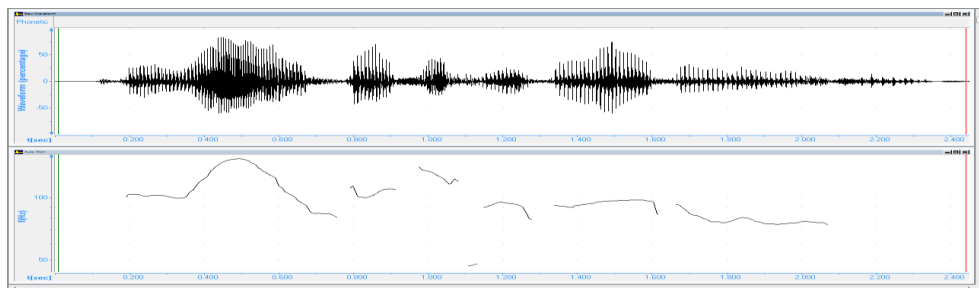


C3

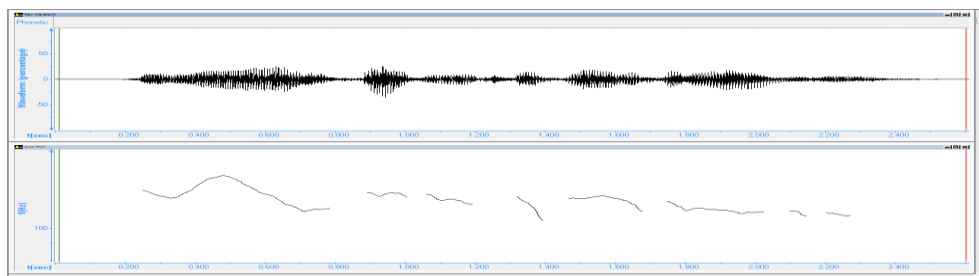
| TONE ELEMENTS |   |                |      |             |
|---------------|---|----------------|------|-------------|
| PRE-HEAD      | HEAD  | TONIC SYLLABLE | TAIL | TONE TYPE   |
| _             | <b>Tom</b> is the <u>captain</u> of this baseball | <u>TEAM</u>    | _    | <b>Fall</b> |

Figure (9): Similar spectrographs for both the NS and C3 performances.

A similar case can be noticed in U2 when C9 succeeds in producing a performance similar to that of the NS. Both performances start with mid-high key pitch, the word “world” is given the highest prominence, the auxiliary “doesn’t” is stressed, and the TS is on the stressed syllable of “around”, which is the second syllable, and finally the pronoun “you” is the tail of the tone group whose type is “fall”. Figure (10) below shows similar performances for both the NS and C9.



NS

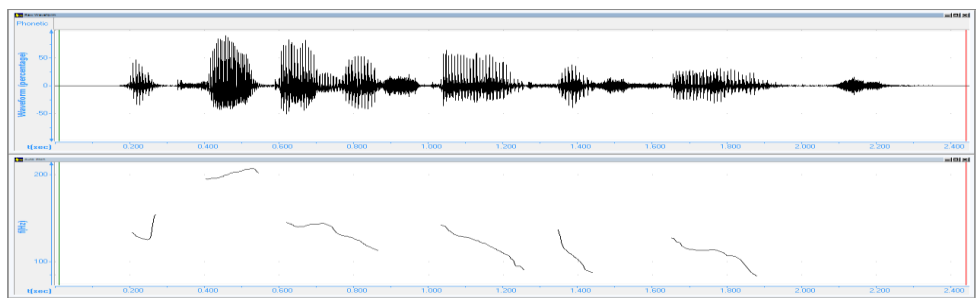


C9

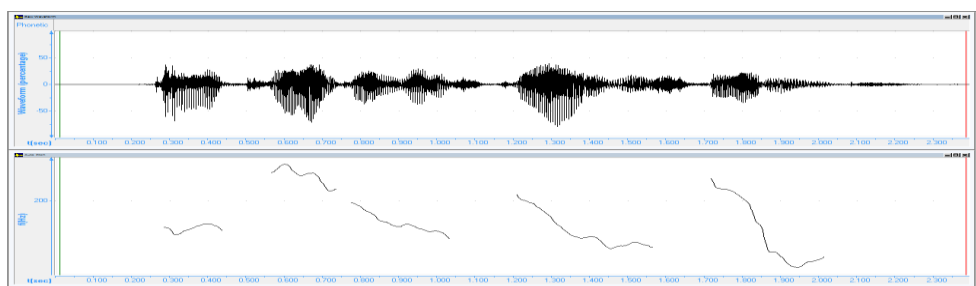
| TONE ELEMENTS |                                |                |      |           |
|---------------|--------------------------------|----------------|------|-----------|
| PRE-HEAD      | HEAD                           | TONIC SYLLABLE | TAIL | TONE TYPE |
| The           | <u>world</u> doesn't revolve a | <u>ROUND</u>   | you  | Fall      |

Figure (10): Similar spectrographs for both the NS and C9 performances..

Another successful production takes place when C8 pronounces U5 as similarly as the NS. The key level is “mid”, the auxiliary “can’t” takes the highest prominence in addition to the word “understand” that carries a considerable stress and the TS and Tail are located on the first and second syllables of the word “feelings”, respectively. The tone is “fall”. Figure (11) below shows the similarities in performances.



NS

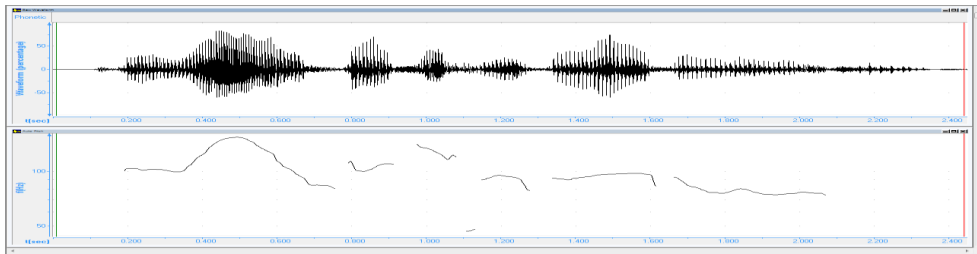


C8

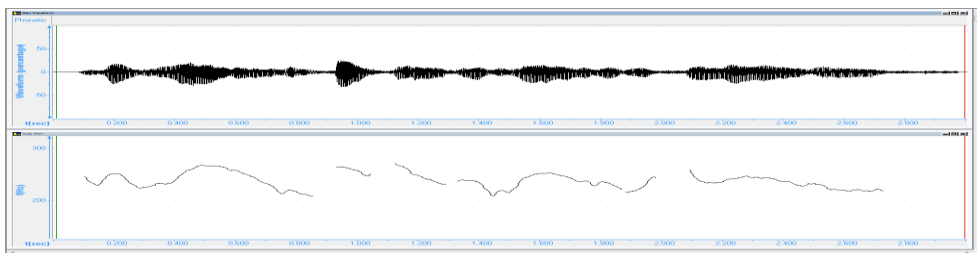
| TONE ELEMENTS |                             |                |      |           |
|---------------|-----------------------------|----------------|------|-----------|
| PRE-HEAD      | HEAD                        | TONIC SYLLABLE | TAIL | TONE TYPE |
| I             | <u>can't</u> understand his | <u>FEEL</u>    | ings | Fall      |

Figure (11): Similar spectrographs for both the NS and C8 performances.

Figures (9-11) show a similarity between the NS' performance and that of the candidates concerning the tone group elements, tone type, and key level. The candidates also show some other similarities in relation to individual features in the NS performance, such as similar tone type, namely "fall" on the same TS followed by the same tail as shown in Figure (12) below:



NS

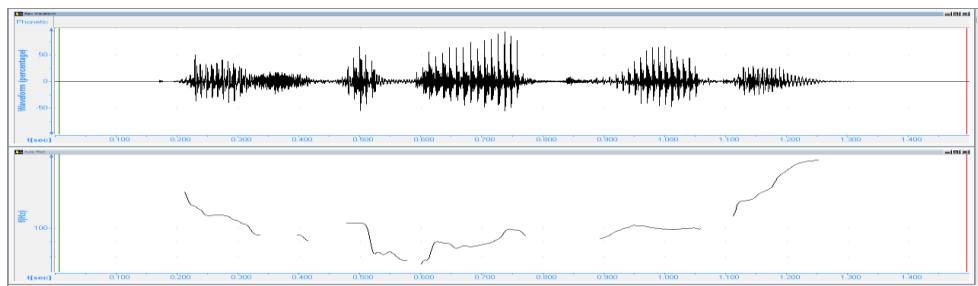


C11

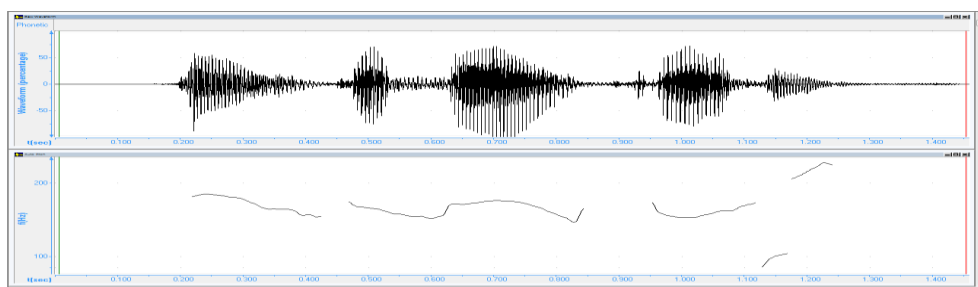
| TONE ELEMENTS |                             |                |      |           |
|---------------|-----------------------------|----------------|------|-----------|
| PRE-HEAD      | HEAD                        | TONIC SYLLABLE | TAIL | TONE TYPE |
| I             | <u>can't</u> understand his | <u>FEEL</u>    | ings | Fall      |

Figure (12): A “fall” tone on the same “TS” and “Tail” in NS and C11 performances.

A similar tone type can be noticed in U3 when a “rise” tone occurs on the same “TS” with the “Tail” as in below:



NS

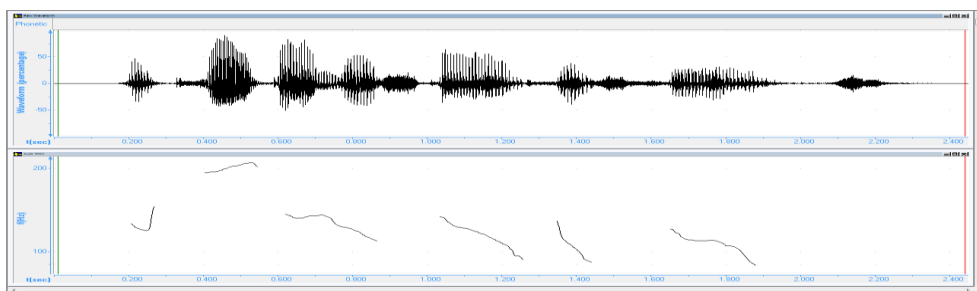


C4

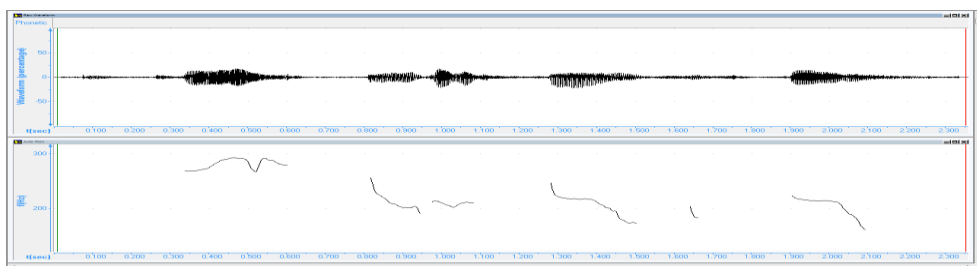
| TONE ELEMENTS |             |                |      |           |
|---------------|-------------|----------------|------|-----------|
| PRE-HEAD      | HEAD        | TONIC SYLLABLE | TAIL | TONE TYPE |
|               | Is the bath | <u>REA</u>     | di   | Rise      |

Figure (13): A “rise” tone on the same “TS” and “Tail” in NS and C4 performances.

A similarity in tone type also occurs when U5 is pronounced with a final “fall” tone on the same TS, viz. the first syllable, which is stressed, of the word “feelings” by the NS and many learners as shown in Figure (14) below.



NS

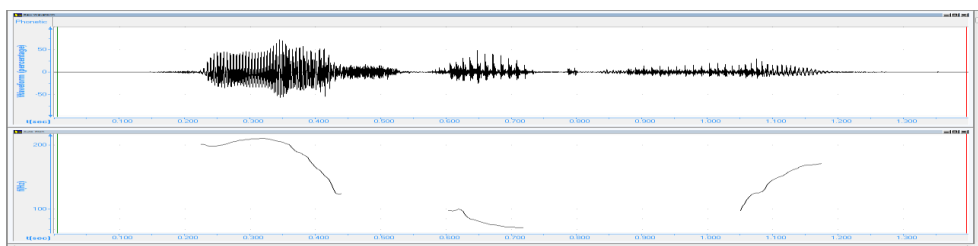


C4

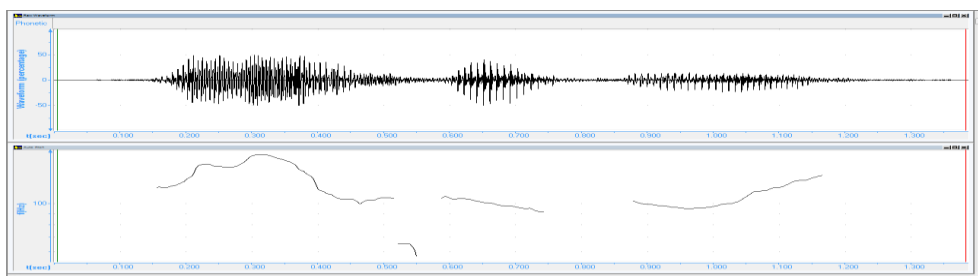
| TONE ELEMENTS |                      |                |      |           |
|---------------|----------------------|----------------|------|-----------|
| PRE-HEAD      | HEAD                 | TONIC SYLLABLE | TAIL | TONE TYPE |
| I             | Can't understand his | <u>FEEL</u>    | ings | Fall      |

Figure (14): Similar spectrographs for both the NS and C4.

The NS and C14 also share the same pronunciation in using the same tone, i.e. a “rise” tone on the same TS in the word “man” at the end of U8 as Figure (15) shows below:



NS



C14

| TONE ELEMENTS |             |                |      |           |
|---------------|-------------|----------------|------|-----------|
| PRE-HEAD      | HEAD        | TONIC SYLLABLE | TAIL | TONE TYPE |
|               | Who is that | <u>MAN</u>     | —    | Rise      |

Figure (15): Similar spectrographs for both the NS and C14 performances.

### 1.5.2. Different Performances between Native Speakers and Candidates:

In the previous section, a discussion of similar performances of utterances for the native speakers and the learners was carried out. The present section tackles the differences which have been detected on analyzing learners' performances. These differences are considered clear deviations from what the native speakers have produced when they pronounce the utterances. These changes are:

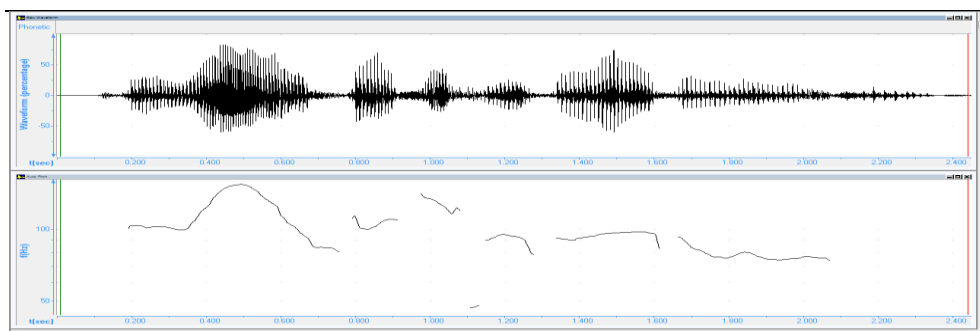
1. Tonic Syllable Position Shift.
2. Prominence Change.
3. Tone Type Change.

#### 1.5.2.1. Tone Position Shift:

A frequent deviation from the NS performance is that the TS is shifted from its original location. The shift occurs in different types of tones.

##### a. The Fall Tone Shift:

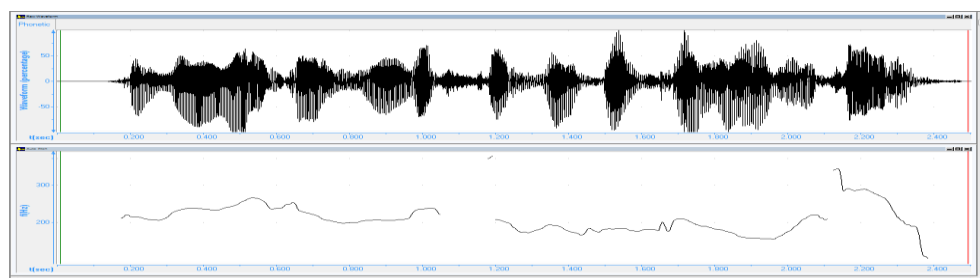
The NS in U2 has located the TS on the stressed syllable of the last content word in the utterance, viz. the second syllable of "around" with a falling tone and with the pronoun "you" as the tail as shown in the notation in Figure (16) below:



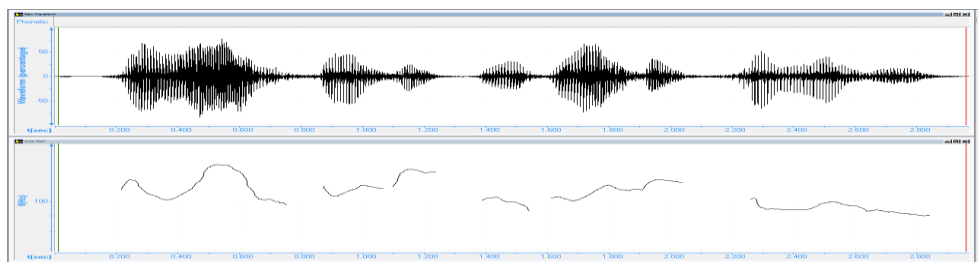
| TONE ELEMENTS |                                |                |      |           |
|---------------|--------------------------------|----------------|------|-----------|
| PRE-HEAD      | HEAD                           | TONIC SYLLABLE | TAIL | tone type |
| The           | <u>world</u> doesn't revolve a | <u>ROUND</u>   | you  | Fall      |

Figure (16): The Notation of NS performance of U2.

It has been observed that a shift in TS location has occurred, namely, the falling tone has shifted to the last word in the utterance, which is, the pronoun "you". Such a shift will necessarily cause a change in the intonational contour of the utterance. There will be no tail and the word "around" will join the words preceding it to form the head of the utterance. This can be shown in the notation below in Figure (17) where both C3 and C12 show a similar tendency to posit the falling tone on the pronoun "you" instead of putting it on the stressed syllable of "around". A similar notation can be provided for both of them.



C3

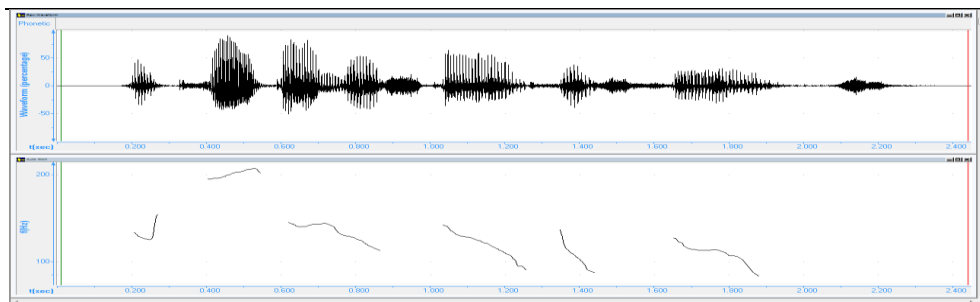


C12

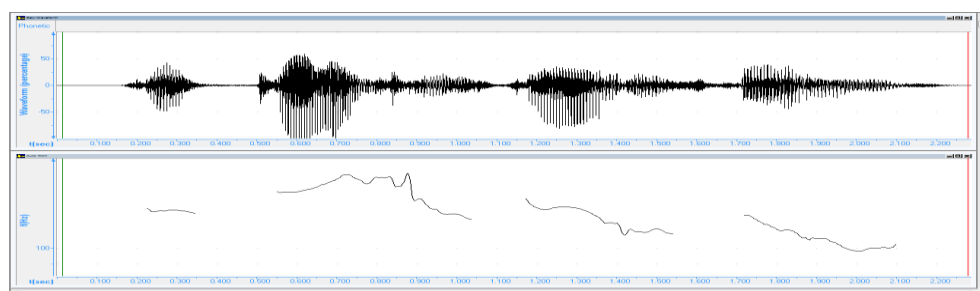
| TONE ELEMENTS |                                |                |      |             |
|---------------|--------------------------------|----------------|------|-------------|
| PRE-HEAD      | HEAD                           | TONIC SYLLABLE | TAIL | TONE TYPE   |
| The           | <u>world</u> doesn't revolve a | <u>ROUND</u>   | you  | <b>Fall</b> |

Figure (17): The notation of C3 and C12 performance of U2.

The reason behind this shift in tone location may be attributed to the tendency to posit the TS on the last word in the utterance regardless of its syntactic identity. Here, the monosyllabic word "you" is the last word of the utterance. Accordingly, the word "you" needs to receive more prominence than it used to have, since it becomes the TS of the tone group. Among the 17 performances of U2, 11 candidates have put the tone shift on "you". This does not mean that the last syllable of any utterance should always be the TS and thus receive the tone shift. In U5, the first syllable of the word "feelings" is the TS and the second syllable which is the last syllable in the utterance is the tail of the tone group. Figure (18) below shows how both the NS and C9 agree on positing the fall tone on the first syllable of the word "feeling" with the tail consisting of the syllable "ings".



NS



C9

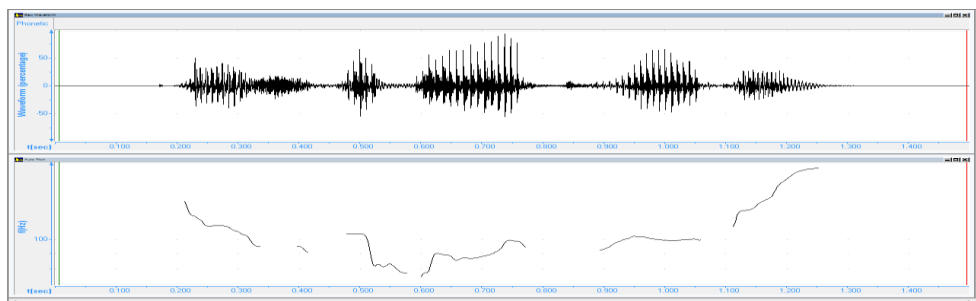
| TONE ELEMENTS |                             |                |      |             |
|---------------|-----------------------------|----------------|------|-------------|
| PRE-HEAD      | HEAD                        | TONIC SYLLABLE | TAIL | TONE TYPE   |
| I             | <u>can't</u> understand his | <u>FEEL</u>    | ings | <b>Fall</b> |

Figure (18): The Notation of NS and C9 performances of U5.

All the 17 candidates have put the fall tone on the first syllable of "feelings" and not the second syllable. In addition to considering it as a successful process of perception and production of U5 by all the 17 candidates, it is believed that no tone shift has occurred in this case. Rather, the word "feelings" is the last word in the utterance and its stressed syllable, the first one, should be the TS having the fall tone on it. In U2 above, the last word in the utterance, viz. "you" is the one that should receive the tone regardless of being a function word.

**b. The Rise Tone Shift:**

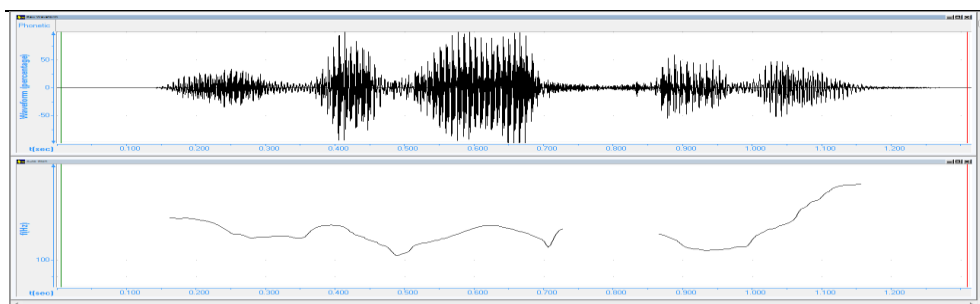
A similar tendency to shift the TS from its original location has been observed in the analysis of the candidates' performance. Figure (19) below shows the notation of the NS performance of U2 where the rise tone is located on the stressed syllable of the word "ready", where the first syllable starts the pitch change as the TS, whereas the second syllable forms the tail of the tone group.



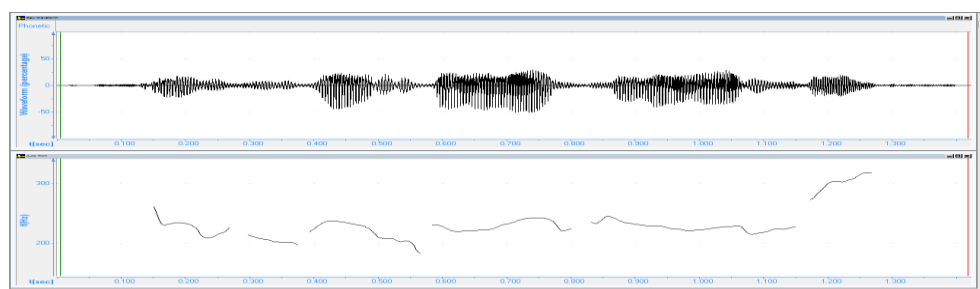
| TONE ELEMENTS |             |                |      |           |
|---------------|-------------|----------------|------|-----------|
| PRE-HEAD      | HEAD        | TONIC SYLLABLE | TAIL | TONE TYPE |
|               | Is the bath | <u>REA</u>     | dy   | Rise      |

Figure (19): The notation of NS performance of U3.

The analysis of the candidates' performance has shown that TS undergoes a shift from first syllable of "ready" to the last syllable, namely "dy" as can be shown below in Figure (20) where C3 and C15 have put the rise tone on the last syllable "ready".



C3



C15

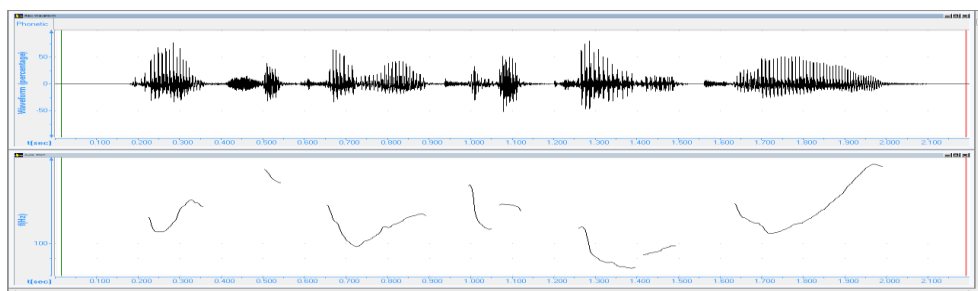
| TONE ELEMENTS |                 |                |           |
|---------------|-----------------|----------------|-----------|
| PRE-HEAD      | HEAD            | TONIC SYLLABLE | TONE TYPE |
|               | Is the bath rea | <u>DY</u>      | Rise      |

Figure (20): The notation of C3 and C15 performances of U2.

The structure of the intonational contour will be different from that of the NS, since the first syllable of "ready" is no longer the TS. As a result, the first syllable will join the preceding syllables forming part of the head of the tone group. It is believed that what makes the candidate posit the tone on the last syllable is that since the utterance is a question, this entails a rise tone to be put on the last syllable of the final word in the utterance ignoring the fact that the TS should be on the first

syllable of "ready". Among the 17 candidates pronouncing U3, 12 candidates have posited the rise tone on the second syllable of "ready" regarding it the TS of the tone group.

A similar shift in rise tone position has been witnessed in the candidates' performances. Figure (21) below shows how the NS pronounces U6 where the rise tone is put on the stressed syllable of the word "tomorrow", which is the second syllable.

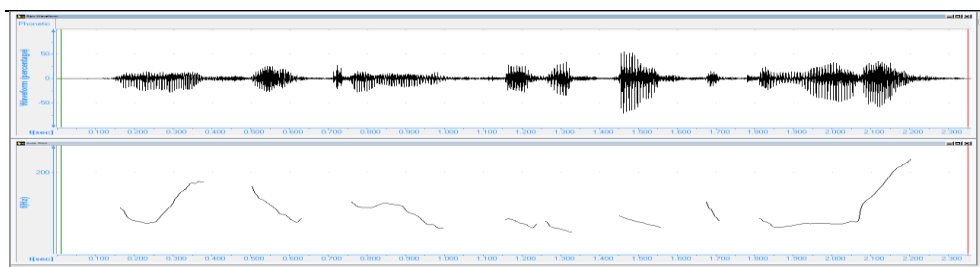


NS

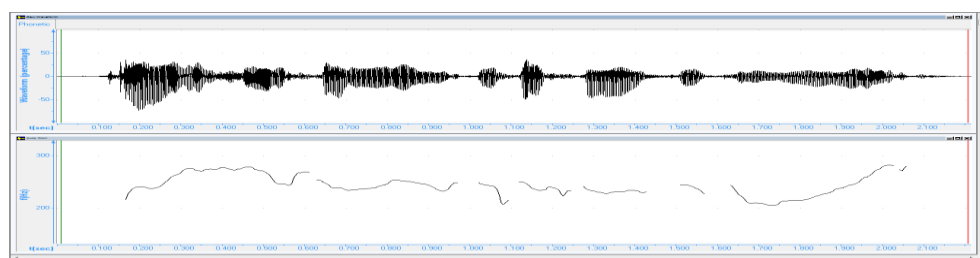
| TONE ELEMENTS |   |                |      |           |
|---------------|---|----------------|------|-----------|
| PRE-HEAD      | HEAD  | TONIC SYLLABLE | TAIL | TONE TYPE |
|               | Aren't <u>you</u> coming to the <u>party</u> to | <u>MO</u>      | rrow | Rise      |

Figure (21): The notation of NS performance of U6.

Among 17 candidates pronouncing U6, 16 have put the fall tone on the last syllable and thus changing the whole intonational contour as shown in Figure (22) below:



C13



C15

| TONE ELEMENTS |                                     |                |           |
|---------------|-------------------------------------|----------------|-----------|
| PRE-HEAD      | HEAD                                | TONIC SYLLABLE | TOPE TYPE |
|               | Aren't you coming to the party tomo | <u>RROW</u>    | Rise      |

Figure (22): The notation of C13 and C15 performances of U6.

The last syllable of "tomorrow" receives the fall tone turning it to be the TS of the tone group. Conversely, the first and the second syllables become part of the head and the tail no longer exists. It is frequently observed that as the pitch shift rests on the last syllable, the second syllable, which is supposed to be the TS and hence stressed according to the NS's performance, turned to be pronounced with a pitch level lower than the last syllable of the word "tomorrow" as can be seen in the last part of the spectrograph.

### 1.5.2.2. Prominence Change:

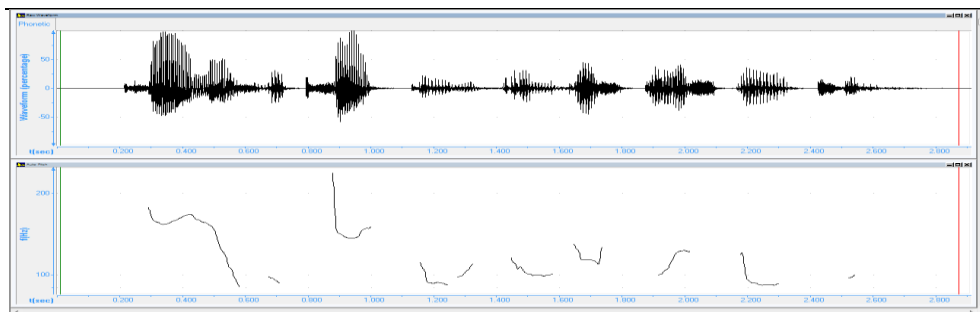
The utterance elements which are normally prominent are the content words. Yet, there are certain cases where a function word may become more prominent than the adjacent words in the utterance. This is the case when the speaker wants to highlight it as having a significant importance. Thus, the analysis of the prosodic features of the English utterances pronounced by the candidates in this study requires investigation of the strategies they adopt in expressing the element of prominence. This is achieved through measuring how prominence locations are detected correctly and how far efficient perception succeeds in presenting efficient production.

The spectrographs succeed in showing the level of pitch on which each syllable is pronounced and thus a vivid distinction can be made between the prominent and less prominent syllables within a single utterance. In the current section, an attempt is made to investigate how far the candidates manage to produce the words which have already gained an exceptional prominence when they are pronounced by the NSs.

Section 1.4. above has manifested the notation of each utterance pronounced by the NSs. There are certain words which have been distinguished that each one of them is pronounced with an exceptional prominence higher than any other word in the utterance except the words containing the TSs. These prominent words are marked as being pronounced with the highest pitch level in the utterance. Those words are "captain" in U1, and "this" in U4".

#### **a. Utterance (1):**

In Utterance 1, according to the NS, the first syllable of the word "captain" is given the highest prominence among the other words as shown in Figure (23) below:

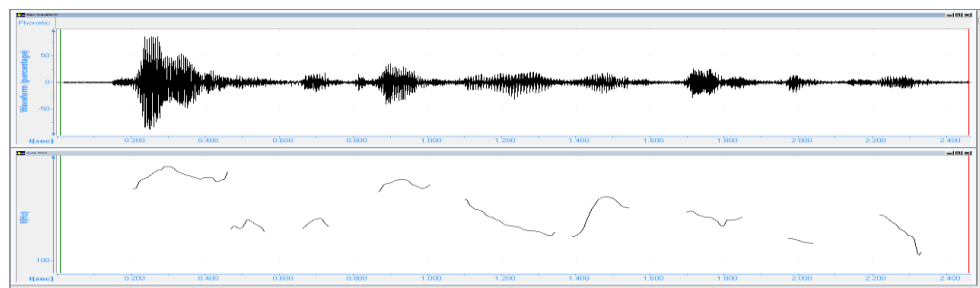


NS

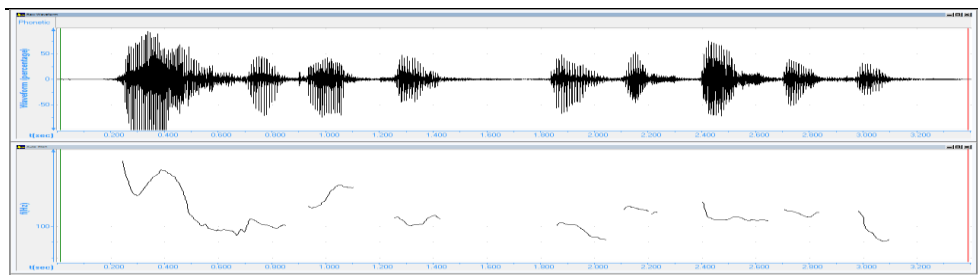
| TONE ELEMENTS |  |                |      |           |
|---------------|--|----------------|------|-----------|
| PRE-HEAD      | HEAD                                       | TONIC SYLLABLE | TAIL | TOPE TYPE |
|               | Tom is the <u>captain</u> of this baseball | <u>TEAM</u>    | —    | Fall      |

Figure (23): The notation of NS performance of U1.

Among the 17 candidates pronouncing this utterance, only one candidate has succeeded in making the word "captain" the most prominent word in the utterance. Instead, 16 candidates have followed a descending prominence route starting from the word "Tom" as the most prominent word and as the first stressed word in the head ending with the word "baseball" as carrying the least prominence degree before the TS, viz. the word "team". Figure (24) below shows how both C5 and C14 fail in accentuating the word "captain".



C5



C14

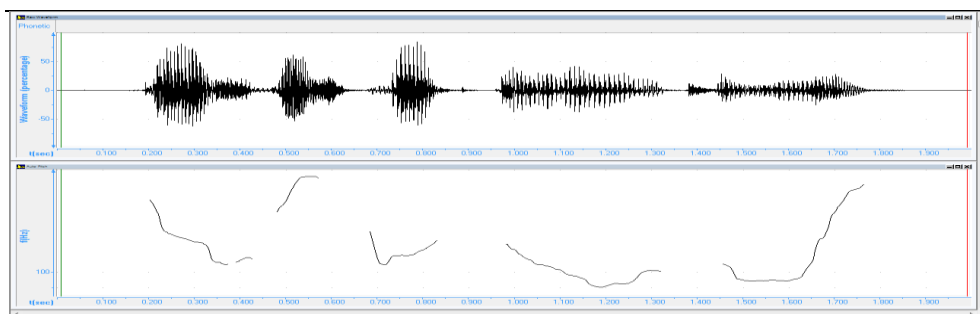
| TONE ELEMENTS |  |                |      |             |
|---------------|--|----------------|------|-------------|
| PRE-HEAD      | HEAD   | TONIC SYLLABLE | TAIL | TONE TYPE   |
|               | <b>Tom</b> is the <b>captain</b> of this <b>baseball</b> | <u>TEAM</u>    | —    | <b>Fall</b> |

Figure (24): The notation of C5 and C14 of U1.

This state of prominence descending may be attributed to that the word "Tom" is the first word in the utterance and it is a content word – a noun- and it should carry the highest prominence in the utterance. Since the utterance is a statement, it ends with a fall tone. So, the starting point is high and the end is low taking the route of a descending fall tone.

**b. Utterance 4:**

The NS in U4 has focused on the word "this" and given it an exceptional prominence as shown in Figure (25) below:

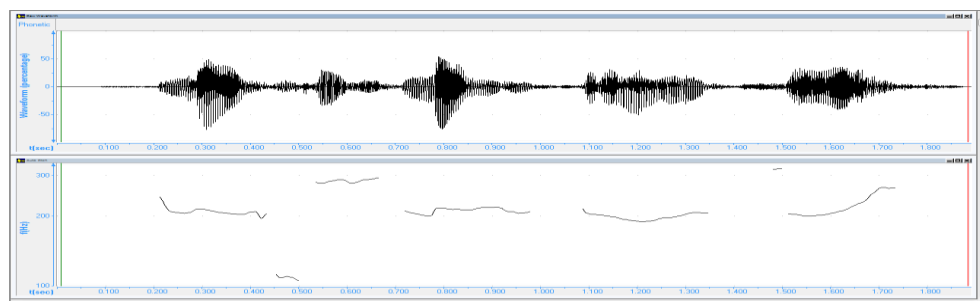


NS

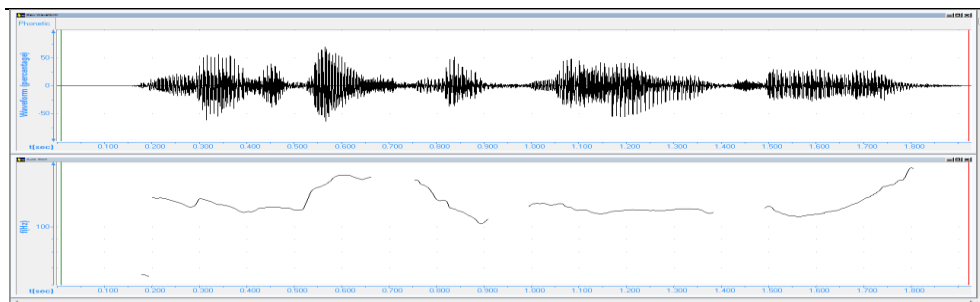
| TONE ELEMENTS |                                 |                |      |           |
|---------------|---------------------------------|----------------|------|-----------|
| PRE-HEAD      | HEAD                            | TONIC SYLLABLE | TAIL | TOPE TYPE |
|               | Does <u>this</u> book belong to | <u>YOU</u>     | —    | Rise      |

Figure (25): The notation of NS performance of U4.

Among the 17 candidates pronouncing U4, two cases are realized: First, 11 candidates have succeeded in recognizing the focus made by the NS on the word "this" and thus it becomes exceptionally prominent. Figure (26) shows how C6 and C8 produce U2 with the word "this" receiving the highest prominence.



C6

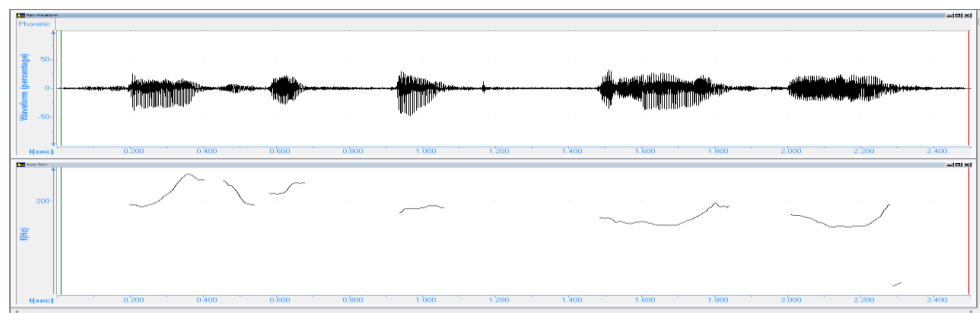


C8

| TONE ELEMENTS |                                 |                |      |            |
|---------------|---------------------------------|----------------|------|------------|
| PRE-HEAD      | HEAD                            | TONIC SYLLABLE | TAIL | -tone TYPE |
|               | Does <u>this</u> book belong to | <u>YOU</u>     | —    | Rise       |

Figure (26): The notation of C6 and C8 performance of U4.

Second, 6 candidates have failed to recognize the focus on the word "this" and that they consider the word "does" more prominent than other words in the utterance as can be seen in Figure (27) below when C5 fails in matching the pronunciation of the NS as to focusing on the word "this".



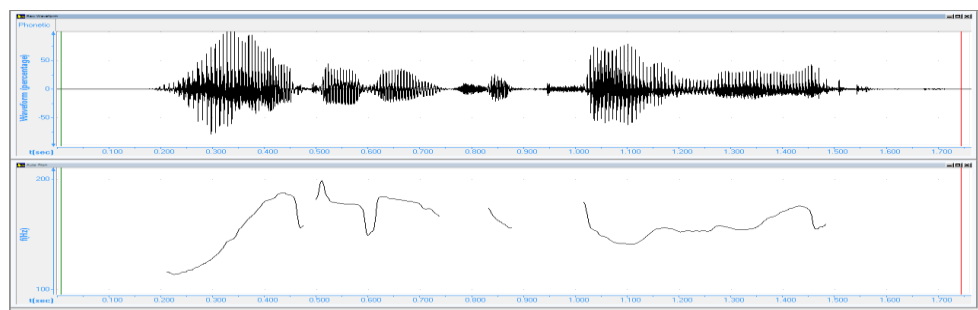
C5

| TONE ELEMENTS |                          |                |      |           |
|---------------|--------------------------|----------------|------|-----------|
| PRE-HEAD      | HEAD                     | TONIC SYLLABLE | TAIL | TONE TYPE |
|               | Does this book belong to | <u>YOU</u>     | —    | Rise      |

Figure (27): The notation of C5 performance of U4.

1.5.2.3. Tone Type Change:

A third case of deviation from the NS performance committed by the candidates is tone change, i.e. the candidate has produced a tone different from the one performed by the NS. This happened in one utterance, namely, U7. The tone used by the NS in this utterance is rise-fall as shown in Figure (28) below:

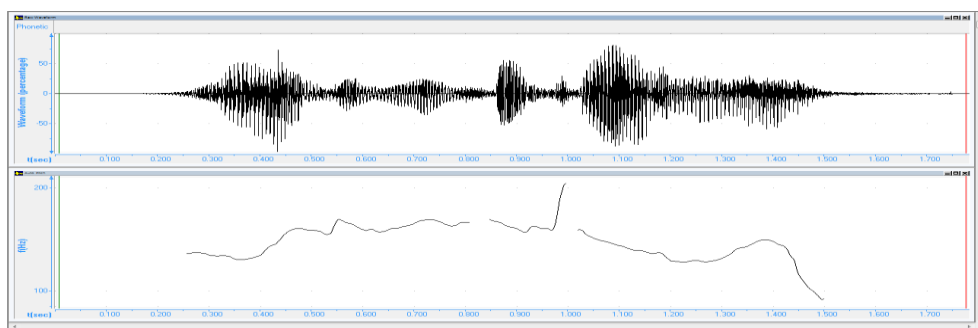


NS

| TONE ELEMENTS |                        |                |      |           |
|---------------|------------------------|----------------|------|-----------|
| PRE-HEAD      | HEAD                   | TONIC SYLLABLE | TAIL | TONE TYPE |
|               | Why didn't you call me | <u>UP</u>      | —    | Rise-Fall |

Figure (28): The notation of NS performance of U7.

The candidates' production of this utterance has revealed two cases of tone change: First, 8 candidates have changed the original rise-fall tone into a fall tone in producing U7 as shown in Figure (29) below:

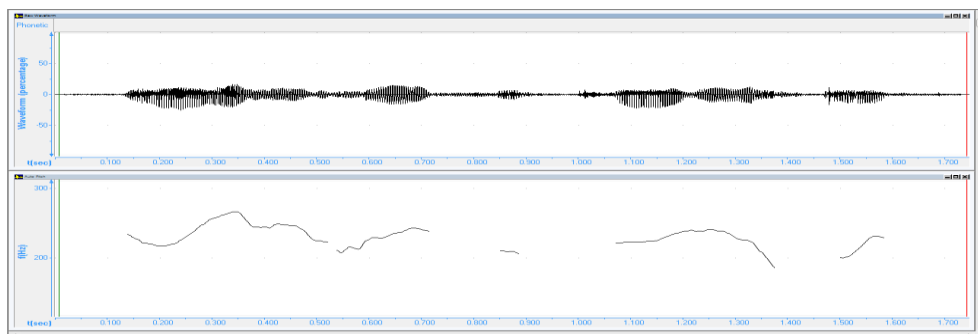


C9

| TONE ELEMENTS |                        |                |      |           |
|---------------|------------------------|----------------|------|-----------|
| PRE-HEAD      | HEAD                   | TONIC SYLLABLE | TAIL | TONE TYPE |
|               | Why didn't you call me | <u>UP</u>      | —    | Fall      |

Figure (29): The notation of C9 performance of U7.

Second, 9 candidates have pronounced U7 using a rise tone as can be shown in Figure (30) where C4 has used a fall tone in pronouncing U7.



C4

| TONE ELEMENTS |                                      |                  |      |             |
|---------------|--------------------------------------|------------------|------|-------------|
| PRE-HEAD      | HEAD                                 | TONIC SYLLABLE   | TAIL | TONE TYPE   |
|               | <b>Why</b> didn't you <b>call</b> me | <u><b>UP</b></u> | —    | <b>Rise</b> |

Figure (30): The notation of C4 performance of U7.

On the one hand, the rise-fall tone is changed into a simple fall tone; this change may be attributed to the regular use of a fall tone in Wh- questions. So the candidate here has failed in matching the NS performance and generalized the fall tone. On the other hand, the other candidates used a rise tone. There may be two reasons for this tone change: The first can be due to the assumption that the candidates have recognized the first part of the rise-fall tone which is rise and used it and neglected the second part of the tone. The second reason is that since the utterance is a question, a rise tone can be used in such a case.

### 1.6. Findings and Conclusions:

The above analyses have shown that some changes in the prosodic features of some of the candidates' utterances have taken place in producing the English utterances. Table (1) below shows the distribution of these changes occurring for the 17 candidates pronouncing the 8 utterances resulting in 136 utterances as the total number with the percentage of each change occurrences in relation to the total number.

| Utterance No. | Tonic Syllable Position Shift | Prominence Change | Tone Type Change   |
|---------------|-------------------------------|-------------------|--|
| U. 1          | None                          | 16                | None   |
| U. 2          | 11                            | None              | None   |
| U. 3          | 12                            | None              | None   |
| U. 4          | None                          | 6                 | None   |
| U. 5          | None                          | None              | None   |
| U. 6          | 16                            | None              | None   |
| U. 7          | None                          | None              | 17<br>8 (from rise-fall into fall)<br>9 (from rise-fall into rise) |
| U. 8          | None                          | None              | None   |
| Total         | 39 (28.676%)                  | 22 (16.176 %)     | 17 (12.5%)   |

Table (1): The distribution of the changes occurring in some of the candidates' utterances

Table (1) shows that the Tone Position Shift takes the highest number of occurrence cases, namely, 39 with 28.676% of the total cases of the candidates' utterances. The second strategy, i.e., Prominence Change, is manifested in the performance of 22 cases, i.e., 16.176% of the total number of candidates' utterances. Finally, the Tone Type Change is observed in 17 cases with 12.5% of the total number of the candidates performances. Accordingly, the number of the utterances which are deviant from the NS' performances is 78 with 57.352% of the total number of the candidates' utterances which are 136. This entails that there is a problem in the perception and production of the English prosodic features by the



Iraqi EFL students, since more than half of the performances are deviant from the original NS' ones.

### **1.7. Pedagogical Implications:**

This study shows that the Iraqi EFL learners encounter some difficulties in perceiving and consequently producing the prosodic features of English utterances, which is a problem that should be solved in classes. It is suggested that more attention is badly needed for teaching the principles of English intonation to focus on both the theoretical and the practical sides of it. The teachers are requested to manipulate the English intonation in EFL classes so that the learners receive as much of the English intonation as possible. Besides, the learners should always listen to English native speakers' pronunciations and consequently practice to reading English texts aloud so that their performances will be constantly evaluated and corrected by their teachers.



## References

- Carr, Phillip (2008). A Glossary of Phonology. Edinburgh University Press Ltd.
- Chun, Dorothy M. (2002). Discourse Intonation in L2: From Theory and Research to Practice. Amsterdam: John Benjamins Publishing.
- Collins, B. and Inger Mees (2003). Practical Phonetics and Phonology. A Resource Book for Students. London. Routledge.
- Grice, M. and Stephan Bauman (2006) An Introduction to Intonation – Functions And Models. In Trends in Linguistics. Non-Native Prosody: Phonetic Description and Teaching Strategy. Trouvain, J. and Gut, U. (Editors). Mouton de Gruyter Berlin· New York.
- Halliday, M. A. K. (1970). A Course in Spoken English: Intonation. London: Oxford University Press.
- Jeffries, Lesley. (2006) Discovering Language: The Structure of Modern English. Palgrave Macmillan.
- Kelly, Gerald. (2001) How to Teach Pronunciation. London. Longman Press Ltd.
- Nolan, Francis. (2006) Intonation. In The Handbook of English Linguistics. Aarts, B. and McMahon, A. (Editors). Blackwell Publishing Ltd.
- O'Grady, Gerard. (2010) A Grammar of English Spoken Discourse: The Intonation of Increments. London. Continuum.
- Roach, Peter (1983). English Phonetics and Phonology. Cambridge. Cambridge University Press.
- \_\_\_\_\_ (2009). English Phonetics and Phonology. Glossary. A Little Encyclopedia of Phonetics. Via Internet. Retrieved at 12 / 4 / 2013.



Snow, David. & Heather L. Balog. (2002). Do Children Produce the Melody before the Words? A Review of Developmental Intonation Research. *Lingua* 112, 1025-1058.

T'Hart, Johan, R. Collier and A. Cohen (1990). *A Perceptual Study of Intonation*. Cambridge. Cambridge University Press

Wennerstrom, Ann (2001) *The Music of Everyday Speech; Prosody and Discourse Analysis*. London. Oxford University Press.