

The Impact of phonetic Cues in Connected Speech

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Abstract

The present study is an attempt to shed light on the term 'juncture' in the English Language. The study is theoretically and practically oriented. The problem lies in the fact that Iraq EFL college students may face difficulty in their recognition in continuous speech, the sequences of words uttered without conventional spaces between them. The listener in general and EFL college students in particular how they are understood what the speaker said for instance, I scream and ice cream?

In this study, the researcher tries to explain how the phonetics cues which help the listeners to understand the difference between the utterances that they have the same phonetic transcription and how the phonetic cues signaling the boundaries between words in connected speech .? The hypotheses of the study (1)The EFL college students can recognize the two similar utterances in connect speech when they listened to them. (2) the EFL college students are not able to recognize the two similar utterances in connected speech.

The results show that the first hypothesis is refuted, that the Iraqi EFL College students do face difficulty in discrimination of two identical phonetic transcriptions. The second hypothesis is verified that EFL college students do not aware of how to use phonetics cues.

In the light of the conclusions arrived at, several pedagogical recommendations and suggestions for teaching English as a foreign language have been made

Keywords: Juncture, Production, Cues, Stress, Syllable

تأثير الاشارات الصوتية في الكلام المتصل

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الخلاصة

تناولت الدراسة مصطلح (Juncture) التوقفات اللفظية من الناحية النظرية والعملية وتوافقاً مع ذلك تتطلب دراسة أي لغة اجنبية اكتساب مهارة تمييز الاصوات . تعنى الدراسة باستقصاء مهارة طلبة الجامعة من متعلمي اللغة الانكليزية بوصفها لغة اجنبية في تمييز وانتاج التوقفات الصوتية المتشابهة لفظياً خلال السياق الكلامي .

تم تصميم اختبار بناء على الاطار النظري للدراسة لقياس القدرة التمييزية والانتاجية لتحديد مجالات الصعوبة في تمييز الفواصل بين الكلمات المتشابهة .تكونت عينة الاختبار من (٦٠) طالب وطالبة من قسم اللغة الانكليزية الدراسة الصباحية في كلية الاداب الجامعة المستنصرية .وبناءً على التحليل اللغوي والاحصائي تم التوصل للنتائج الآتية : ١ . تميز متعلمو اللغة الانكليزية بوصفها لغة اجنبية في الجامعات العراقية بضعفهم في انتاج وتمييز الفواصل (التوقفات) اللفظية بدون استخدام الدلائل الصوتية التي تمكنهم من التمييز على المقطع الكلامي.٢. توجد اختلافات ذات دلالة احصائية بين الطلبة في تمييز وانتاج التوقفات الصوتية.

أن غالبية الاخطاء تنسب سياق طريقة التعلم، وأثر اللغة الأم (العربية) ونظامها الصوتي في تمييز الفواصل الصوتية اللفظية بين الكلمات الانكليزية . واخيرا اختتمت الدراسة ببعض التوصيات التعليمية لتدريس الانكليزية بوصفها لغة اجنبية .

الكلمات المفتاحية : التوقف الصوتي ، انتاج ، تلميحات

SECTION ONE

DESCRIPTION and DISCUSSION OF JUNCTURE

1.1 The Concept of Juncture

The term juncture comes from Latin "Juncture" means "joint", (Skandera & Burleigh (2011:61). Trask (1997:121), and Gimson (2008:295) argue that juncture is considered one aspect of phonetics features which signals the boundary of the words in connected speech.

There are several ways for identifying juncture, the remarkable feature is the signaling the boundary, including pauses that the speaker makes with hesitation noises like "err", "um". But the phonological boundaries are marked by the restriction on a possible combination of a phoneme which is called "phonotactics". The other phonological boundaries of connected speech signaled by suprasegmental features of "loudness", "pitch", and "duration" finally "the most reliable boundary signals are rule-governed phonetic processes that take place when phoneme occurs at the beginning or end of linguistic units, such as the partial devoicing of some lenis consonants in word-initial position, and the full devoicing of these consonants in word-final position.", (Skandera & Burleigh :2011:61).

Crystal (2008:258) confirms that juncture is a term used in phonology which refers to the phonetic boundary features that demarcate words or clauses, the most obvious feature of juncture is "silence"; juncture in connected speech is signaled by pitch, stress, and length to show the difference between *that stuff* /ðæt stʌf/ and *that's tough* /ðæts tʌf/. In segmental phonological transcription, the above phrase appears as identical but one can differentiate between them in a speech by phonetic modification; in *that stuff* /ðæt stʌf/ the /s/ is strongly articulated and /t/ is un aspirated, while *that's tough* /ðæts tʌf/ the /s/ is relatively weak and /t/ is aspirated.

According to Hartmann & Stork (1972:121) and Matthews (2007:209) juncture refers to the degree of linking between two successive sounds in speech, i.e., marking the joining one phrase or clause with another or with silence. Similarly, Roach (2009:115) mentions that juncture is a special case of linking shows the relationships between one sound and the sounds that precede and follow it.

While Ogrady (2013:83) states that juncture refers to phonetics features that are "demarcated a stream of speech into grammatical units such as morpheme and words". The most obvious feature of juncture is silence which signals the separation between two units in connected speech. For example, the two utterances "keep sticking" and "keeps ticking", the

hearers have difficulty in distinguishing between these two utterances why? In "keep sticking the phonemic sequences [st] is found within the same word, the [t] is not aspirated in an initial position, in contrast, keeps ticking, the phonemic sequences [st] is not found within the same word, the [t] is aspirated. Thus, the aspiration is considered one of "*phonetics cues which hearers can use as cue enabling them to separate the phonemic stream into morphemes and words*"

1.2 Classification of Juncture

Types of juncture be classified as follows :

1.2.1 Open juncture known also plus juncture which means a transition between consecutive sounds signaled by a pause in articulatory, for example, pea stalks / pi: stɔ : ks/ juncture relate /I:/ to /s/ is open juncture, (Gimson,2008:295). Carr(2008:81) states that open juncture refers to "full word boundary" called stronger juncture

She writes a letter / ʃ i ¹ r aɪ t ə ¹ l e t ə /, the transition between /i/ and /r/ is open , the speaker can pause / ʃ i / and / r aɪ t / and / r aɪ t / and / ə ¹ l e t ə /.

1.2.2 Close juncture: refers to the absence of pause in the articulation of two successive sounds, as in the normal transition between sounds within a word. For example, my turn / m aɪ t ɜ : n/ the relation between /m/ and / aɪ / is called close juncture .two successive sounds do not distinguished by pause,(Roach ,2009:115). Also, close juncture also called terminal juncture can be distinguished by three types :

A· Level (sustained) juncture ;this type is signified with the pitch when the sound rises very slightly, represented with single < / > often called single bar juncture for example "*Mr. Smith,/ the gardener,/ is out.*"

B· Rising juncture, this type of juncture represented when the pitch of the voice rises before the pause, as in asking the question, symbolized by the rising arrow or double line < // > often called a double bar juncture, for example, *Are you coming ?//.*

C· Falling juncture;this type as it name represented falling, when the pitch of voice weakens into silence signals by a falling arrow or double-cross < # > often called double cross juncture usually course at the end of the clause or an utterance, for example, *Go to your room #* Hartmann&Stork,1972:121).

1.3 Stress

Ladefoged and Johnson (2011:111) state that stress is a source of emphasis or the degree of force of an utterance, i.e in English, almost every word has at least one syllable which is noticeably more prominent than the other syllable, it is louder, longer and shows more pitch variation than the surrounding syllable. The more prominent syllable has stress,

(Davenport and Hannahs,2010:78). As far as juncture refers is concerned it to pauses between words, in addition to that , it is signa the boundary between two syllables in speech i. e the normal distinction is stressed and unstressed syllable the notion of stress is “emphasis” or “strength” the syllable. In terms of Rhythm, context stress-timed falls in intervals regular time within the utterance, for example

walk down the path to the end of the canal
/ wɔ : k daʊ n ðə pɑ : θ tə ði end əv kə. l næl/

SECTION TWO

Methodology

2-1 The Test

Brown (1987:129) defines a test as “ a method of measuring a person's ability or knowledge in a given area ”.He (ibid.) states that the construction of a test requires several components, considered important in determining test procedures: (1), Testees (Subjects);(2)relevant data to achieve the goal for which the test is constructed ; (3)keen scoring of the subjects answers to the test items; and(4) discussion of the results.

2-2 The Testees(the subjects)

The test has be designed to elicit the problem , that is conducted a random samples of sixteen from second class EFL students, morning classes, English Department in the College of Arts at Al- Mustansiriyah University, during the academic year 2017-2016. The reason behind chosen selecting second class students in this study is to reveal the extent to which Iraqi EFL-College students are aware of the aspects of connected speech and stress in English. The test is two parts, the first part is recognition (listening) part aims at measuring students ability to recognize the given expression used in the test, the second part is production(written) aims at measuring students ability to pronounce the designed expressions that are used for the test. The two tasks describe that the first one is recognized, it includes ten multiple-choice items. The testees should match the right phrase when they listen to it. The second which is a production one includes also ten items the testees choice the right transcription of the phrase given.

The Material that the test eclectics from different textbooks of phonetics.

2-3 Validity and Reliability of the Test

Validity and reliability are the significant properties instruments, the test has been exposed to specialists and instructors in TEFL to decide its face validity and suitability for students' level and it has gained the agreement of all of them Whereas the test reliability has been achieved by using (spit half methods). The method means that the test is divided into

parts to determine the extent to which scores on these two parts are consistent with each other, (Bachman,1990:172).In addition to that the researcher using the Pearson correlation coefficient to estimate the reliability of the test of the two parts that have yielded a reliability coefficient of 0.733.

2-4 Items Analysis of the Test:

In this respect, item analysis which means determining item difficulty level and discrimination power. The former indicates the percentage of the testees who gave the right answer to the items. While discrimination power refers to how well the items can perform in distinguishing the good testees from poor ones, (Valette,1977,59).

Following the test scored, the difficulty level for each item is obtained by using the following formula:

$$\text{High wrong} + \text{Low wrong}$$

Total number of the Sample (Bachman, 1990:179)

As it is well known that a test is considered good if its difficulty level varies from 20% to 80 %. So, the test items were found to have an acceptable difficulty because their difficulty level falls in a range from 28% to 77%. As far as items discrimination power is concerned, it has been found that ranges between 30% to 64%. That means, almost all of the test items gain a good discrimination power because they are above 30% as supported by Downie and Heath, 1983:160). Below the tables illustrating the above notion.

Table (1) Items Difficulty and Discrimination Power of Recognition Part

No	Difficulty Level	Discrimination Power
1	0.47	0.32
2	0.28	0.31
3	0.77	0.52
4	0.29	0.34
5	0.52	0.49
6	0.48	0.33
7	0.48	0.31
8	0.50	0.43
9	0.55	0.33
10	0.43	0.30

Table (2) Items difficulty and discrimination power of Production Part

Item No	Difficulty level	Discrimination Part
1	.33	0.50
2	0.48	0.30
3	0.28	0.40
4	0.37	0.34
5	0.35	0.31
6	0.40	0.31
7	0.55	0.44
8	0.35	0.39
9	0.38	0.64
10	0.42	0.52

2-5 Scoring Scheme :

The term "scoring" refers to the process of correcting tests and assessing the numeral scores. Horrocks and Schonover (1969:76) believe that the objectivity of the test, a scoring scheme must be objective and accurate. In scoring the subject's answers to the items, the researcher depends on the "right-wrong basis, or the 1-0 principles, by giving '1' mark for the correct answer and '0' for incorrect or neglected one

2-6 Statistical Tools

The following statistical tools are used in order to achieve the goal of the two-part test :

1. The T – test for two independent samples , to know the different between the means of scores of recognition and production parts of the test .

$$T = \frac{d - \bar{sd}}{\frac{sd}{\sqrt{n}}}$$

Where

d- = the variance between recognition and production scores

sd= the standard deviation of the variance

n= the sample size

2. Pearson Correlation Coefficient , to estimate the reliability of the test of the two parts

$$R = \frac{N \sum x_1 x_2 - \sum x_1 \sum x_2}{\sqrt{[N \sum x_1^2 - (\sum x_1)^2][N \sum x_2^2 - (\sum x_2)^2]}}$$

Where

$\sum x$ = sum of the student's scores in the first part of the test

$\sum y$ = sum of the student's scores in the second part of the test
 N = the sample size (Bachman,1990:42)

3. The items discrimination power, to find out the discrimination power of each item of the test.

$$Dp = \frac{Wu - Wl}{1/2 T}$$

Where

Dp = discrimination power

Wu = the number of testees in the upper group who answered the items incorrectly.

Wl = the number of the testees in the lower group who answered the the items correctly .

T = the total number of testees including in the item analysis.

SECTION THREE Data Analysis and Results of the Test

3-1 T-Test: After obtaining the data processed statistically, the result has been analyzed relating to the aim of the present study, t-test analysis for to make comparison between the computed t – value and tabulated t – value indicate that the computed t value is (2,469) which greater the tabulated value (2,000) with level of significance (0.05) and degree of freedom (59).This indicates that there are statistical differences between recognition and production in the achievement of the students in favor of the former. Below the table illustrate what states above :

T- Test result performance of Recognition and Production

Type	Mean	Sample N	Standard Deviation	T- Value		D F	Level of Significance
				calculated	tabulated		
Recognition	2.8333	60	2.2487	2.469	2.000	59	0.05
Production	2.1333	60	1.9698				

It is obvious from the table above that recognition means is 2.8333 which is higher than the production mean which is 2.1333. This clarifies that the level of second-year students of signaling the pauses (juncture)

is satisfactory compared with the production of phrases that should have paused. The result proves that the level of students in production is weak. This led us to the final judgment that production is more difficult than recognition. It should be noticed here, that the total number of items is (20), where the (10) items standing for recognition part and (10) for the production part. The number of the right answers to the recognition part is (210) and the number of the wrong answers is (405). While the number of the right answers to the production part is (240), and the number of the wrong answers is (342) to say that the aim of the study is achieved.

3-2 Analysis of Results

As shown in the above section 3-1, it is found out that second-year students, the College of Arts at Al –Mustansiriyah University have the insufficient ability in recognizing and producing English term Juncture. This is obvious from the numbers of the wrong answers concerning the recognition and production parts that exceed the right ones.

Comparing the total number of the right answers to the test (450) out (747) gives evidence that the students have unsatisfactory performance.

Conclusions

The analyses mentioned in the previous section as well as the result of the test, resulting in the following conclusions :

1- The first hypothesis is refuted, in that Iraqi EFL –college students do face difficulty in recognizing and producing the phonetics cues that are used in signaling pauses between utterances, such as pitch, stress, the loudness of specific syllable.

2- The second hypothesis is verified since there are statistically significant differences between the tests (subjects) performance on each level between production and perception of similar utterances in a speech.

Recommendations :

Depending on the conclusion of this study, the following points are recommended for pedagogical purposes :

1. Teachers of English of EFL college students, start focusing on the students' pronunciation of the term stress of syllables in connected speech.
2. Students as Foreign English Learners should attend laboratories, or at least listen to tape recorders of word sentences or passages focusing the context of similar, identical sound and try to discriminate the meaning of these identical utterances in a speech.
3. Teachers who teach EFL students should explain thoroughly the phonetics cause which concerned with pitch, intonation, stress, aspiration, etc. to be more clear to the students since they are learning the second language

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