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## The Perception of Primary Stress in Initially Extended Simple Sentences: A Demonstration by Computer in Foreign Language Teacher Training

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### Abstract

The intelligibility of speech strongly depends on the placement of primary stress, which is a suprasegmental phoneme. Pedagogically speaking, in ESL, EFL, SLA, and foreign language teacher education, the teaching of pronunciation and intonation of extended sentences to nonnative speakers (NNSs) has always been advocated to improve the intelligibility of their speech. Primary stress is a form of prominence, a degree of force with a syllable in a word, phrase, clause, and sentence is uttered, changing the meaning of utterances in spoken language. Primary stress can play a phonemic role, contrasting lexical pairs *verb/noun/ adjective*. Acquisition of the correct pronunciation of the English words by hearing from the authentic texts is extremely difficult for foreign students, even the teachers, because English has several degrees of word stress like, primary, secondary, tertiary, and weak stresses, which are by nature are all suprasegmental phonemes. In this research, 25 initially extended simple sentences will be downloaded via Audacity program in 44100Hz from the Longman English Dictionary (2008) which will be orally given to 58 English Language Education Freshmen in a multiple choice test. The participants will listen to each extended simple sentence three times within 5-second intervals. They will be asked to pin down the primarily stressed words both in the extended part and the main clause. This way, their perception of the place of the primary stress in relation to standard English utterances will be evaluated.

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## 1. Introduction

Simple sentences consist of one independent clause which usually contains one subject and one verb with a predicate (complement). Simple sentences are divided into unextended and extended types, depending on how many words they contain. Main issue to know about unextended simple sentences is that they contain only one subject and one verb, having other phrases without verbs that are attached to the simple sentences from the beginning of them. We need to be careful to distinguish the simple and extended simple sentences. The term *simple sentence* can be confusing due to its contents (Celce-Murcia, et al., 1999; Rogerson-Revell, 2011; Brown, 2014). Grammarians use *clause* to refer to both *simple sentences* and to *subordinate clauses*; a simple sentence is called an *independent clause*. According to Longman Grammar (Biber, et al., 1999, p. 120), a clause is a unit structured around a verb phrase; similarly, some grammarians and linguists use the term *utterance* to refer to the units of spoken conversation.

The basic English language sentence is called a simple sentence (Demirezen, 2012, p.136). A simple sentence can be short and with uncomplicated ideas; yet, it can be long and with complicated ideas which may take place also in extended simple sentences. In grammatical analysis, simple sentences are important because they are used as the foundation unit for explaining other structures. That is, they grow into complex and compound sentences by means of additional noun, adjective, and adverbial clauses. Thus, our goal is to get encourage the students to use simple sentences, and develop them into an effective mixture of simple, compound, and complex sentences appropriate to the type of material that they are writing.

### 1.1. The types of simple sentences

Structurally speaking, according to Demirezen (2012, pp. 136-142), there are six types of simple sentences, which may be extended from the beginning, middle, and from the end, which can be further divided into simple sentences and extended simple sentences. The combination of a subject and predicate together form a simple sentence. In fact, the term "simple" refers to the basic syntactic structure of a sentence. Simple sentences can be short or long, and can express simple or complex thoughts. Here are three simple sentences:

- Man is mortal.
- My father, mother, and sister went swimming.
- Jane studied math's with George, Jimmy, and Linda.

Extended simple sentences from the beginning:

Several types of phrases can come before the simple sentence. The initial phrase of a sentence is an introductory modifier (Giegerich, 1983; Hahn, 2004; Mannell and Harrington, 2014), which is usually a signal for a comma, indicating the extended part:

- Since the creation of human beings, man is mortal.
- To lose weight, my father, mother, and sister went swimming.
- Before the difficult exam, Jane studied maths with George, Jimmy, and Linda.

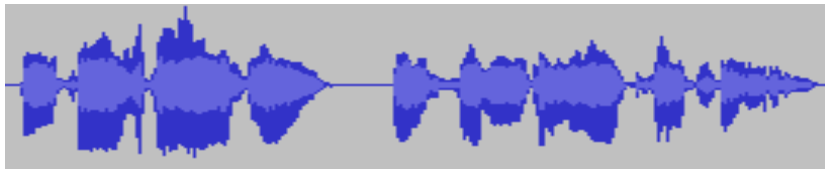
The simple sentences with extended phrases from the beginning are easy to confuse because their separate elements from the main clause look like separate sentences. To demonstrate this fact, Demirezen (2012, p. 140) cites the following examples:

- Afraid to move in front of the hungry lion, Jane froze in terror.
- Grumbling over the injustice of working on a Sunday, the workers rioted the whole day.
- Being the most commonly occurring vowel sound in English, the schwa phoneme has a pivotal role in the communication process.
- By examining ways of practicing these prosodic features, teachers make classroom speech more like normal speech.

### 1.2. The intonation of initially extended sentences

Initially extended simple sentences may have different types of extensions that precede the main clause. According to Wells (2007, p. 196), adverbials at the beginning of a clause are usually followed by an intonation break in British English, which is demonstrated by a sustained juncture phoneme /→ / in the following 3 sentences:

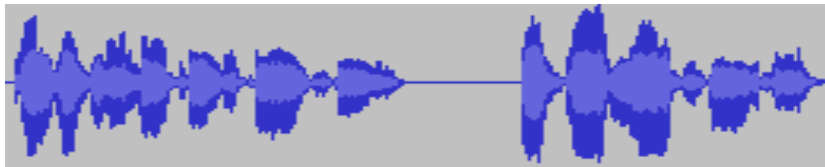
- On Thursday **EV**ening , I'm having dinner at **PATSY**'s.



/<sup>2</sup>On Thursday<sup>3</sup>**EV**ening<sup>2</sup>→<sup>3</sup>I'm having dinner at <sup>3</sup>**PATSY**'s<sup>1</sup>↓/

Figure 1. Audacity sound wave for "On Thursday evening, I'm having dinner at Patsy's."

- Under the **CIR**cumstances, we've got no **CHOICE**.



/<sup>2</sup>Under the<sup>3</sup>**CIR**cumstances<sup>2</sup>→<sup>2</sup>we've got no<sup>3</sup>**CHOICE**<sup>1</sup>↓/

Figure 2. Audacity sound wave for "Under the circumstances, we've got no choice."

- During the last three **YEARS**, our budget hasn't increased at **ALL**.



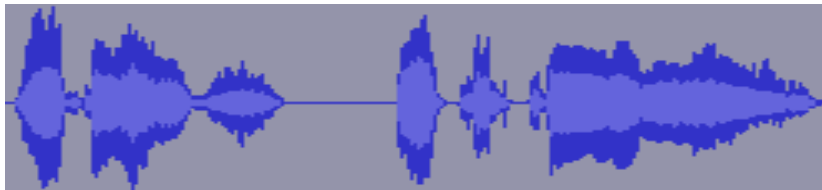
/<sup>2</sup>During the last three<sup>3</sup>**YEARS**<sup>2</sup>→<sup>2</sup>our budget hasn't increased at <sup>3</sup>**ALL**<sup>1</sup>↓/

Figure 3. Audacity sound wave for "During the last three years, our budget hasn't increased at all."

The initially coming part of the simple sentence precedes the main clause and therefore is called leading tone which gains a dependent fall-rise tone (Wells, 2007, p. 69), which can be symbolized as / ↓↑ / by a statement like

- After **lunch**, we could 'call on Mary.
- /<sup>2</sup>After <sup>2</sup>↓↑**LUNCH**<sup>3</sup>→<sup>2</sup>we could <sup>3</sup>'**CALL** on Mary<sup>1</sup>↓/

Alternatively, a leading dependent element may have a rise (including the possibility of a mid-level tone). We call this tone meaning the dependent rise (Wells, 2007, p. 69).



/<sup>2</sup>After <sup>3</sup>lunch<sup>3</sup> → <sup>2</sup>we could<sup>3</sup> C'ALL on Mary<sup>1</sup>↓/

Figure 4. Audacity sound wave for “After lunch, we could call on Mary.”

In the utterances of initially extended sentences, the commonest intonation pattern is /232 → 231↑ / both in British English (BrE) and North American English (NAE). /the sustained juncture phoneme /→/ also stands for comma as a punctuation mark.

Participants worked on 500 words, phrases, clauses, and sentences, downloaded from the aforementioned dictionaries by means of audacity computer program 1.2.6 in form of Audio Tract mono 32-bit float in 44100Hz with their audio forms imprinted on the graphic notation. The listening activities were supported by the programs of text-to-speech-labs by means of which any extended simple sentence would be converted into human voice.

Many writing and conversation class teachers worry about such initially extended sentences because their perception is not easy in relation to *sentence formation*. In addition, in oral language, words and sentences cannot be changed once they have been spoken. That’s why, the intonation of initially extended sentences is highly important. Students should become more adept at expressing their ideas in spoken language. In writing, there is no problem like this since writers can arrange and rearrange their sentences, by crafting them via combining related ideas into a single, more compact sentence.

**2. Methodology**

The aim of this research is to explore the perception of primary stress in initially extended simple sentences. For this purpose, the following research questions were formulated:

1. Do the participants have serious problems in perceiving the place of primary stress in initially extended simple sentences?
2. Do gender differences influence the participants’ perception of primary stress in initially extended simple sentences?
3. Does age factor play any significant role in participants’ perception of primary stress in initially extended simple sentences?
4. Do the students need a remedial teaching as a listening comprehension activity?

*2.1. Setting and Participants*

A total of 58 first year students majoring in English as a foreign language enrolled in program in the 2013-2014 academic year in Hacettepe University at the Department of English Language Education participated in the study in the course titled İDÖ 176 Listening and comprehension. There were 40 female (69 %) and 18 male (31%) students in the study and their age ranged from 19 to 20 (see Table 1). The participants have studied on 400 samples sentences.

Table 1. Participants

N= 58		Count
Gender	female	40
	male	18
Age	19	10
	20	48

## 2.2. Design

An after-only (post-test only) design was used for the present study. That is, the students enrolled in İDÖ 176 Listening and comprehension course were received treatment in listening and articulation of stressed words in initially extended simple sentences. At the end of the treatment, a listening post-test which consisted of 25 simple sentences was administered to measure the students' ability to perceive the most stressed words in the sentences. Participants listened to the questions which were written on a sheet and did shadow listening while hearing the questions. Each question via shadow reading and listening was given to the students three times within 5 second intervals and was asked to pin down the primary stress both in the initially extended part and in the main clause.

## 2.3. Instruments

This is a descriptive research on listening comprehension. The data for this study were gathered using a post-test comprising 25 initially extended simple sentences. The participants were asked to listen to the sentences and find out the most stressed words in the initial phrases and then in the following simple sentences and check the correct option in their answer sheets. Each question was aimed to test students' capability in perceiving the most stressed words in initially extended simple sentences, downloaded from aforementioned two dictionaries that have CD in English. Each question is given audibly from the voices of native speakers three times within 5 second intervals in a language lab to the participants.

## 2.4. Data collection and analysis procedures

The data analysis was carried out in order to address the research questions formulated for the present study. The statistical analyses were performed using IBM SPSS Statistics 21. Descriptive statistics such as mean and percentages were used to characterize variables involved in the analysis. As the data met the normality assumption for the employment of parametric tests, the t-test was used to assess the role of gender and age differences in perceptions of stress in simple extended sentences.

## 2.5. Results and discussion

The main aim of the present study was to investigate the perception of the place of primary stress in initially extended simple sentences by prospective English teachers in teacher education programs. The study also sought to explore and determine differences in pre-service EFL teachers' perceptions of primary stress by gender and age factor. This section presents the results of the study in terms of descriptive and inferential statistics in the order of research questions followed by a discussion of the findings.

- ***RQ #1: Do the participants have serious problems in perceiving the place of primary stress in initially extended simple sentences?***

The results of descriptive analysis (Table 2) revealed that nearly six in ten (61%) of the participants rated correctly ( $M=15.31$ ,  $SD=2.69$ ) whereas 39% responded incorrectly ( $M=9.69$ ,  $SD=2.69$ ). Moreover, less than three in ten (23%) of the participants scored above the self-developed satisfactory level (an estimated mean value of 3 in a grading system ranging from 1 to 4) while 77% fell under this satisfactory level. In other words, the total score of the participants' true responses fell under the self-developed satisfactory level. These findings suggest that a great majority of the first year students majoring English as a foreign language have serious problems in perceiving stressed words in initially extended simple English sentences. These findings provide answers for our first research question.

Table 2. Descriptive statistics for the participants and variables measured in the study

Variables	N	Min	Max	Mean	SD
Gender	58	1	2	1.69	.47
Age	58	19	20	19.33	.85
Correct answers	58	7	20	15.31	2.70
Incorrect answers	58	5	18	9.69	2.69

• **RQ #2 Do gender differences influence the participants' perception of primary stress in initially extended simple sentences?**

An independent samples t-test was conducted to find out whether there were any significant differences between the scores of males and females in perceiving stress in simple extended sentences. The results, as shown in Table 3, revealed no significant differences between groups. However, females had higher mean scores ( $M = 15.45$ ,  $SD = 2.65$ ) than males ( $M = 15.00$ ,  $SD = 2.85$ ). In other words, the scores obtained for correct answers in females were not so high as to make a difference between groups,  $t(56) = -.59$ ,  $p > .05$ . Furthermore, the similarity of mean scores for the incorrect answers also revealed no significant differences between groups,  $t(56) = .58$ ,  $p > .05$ . This implies that both groups had nearly similar perceptions of stress in simple extended sentences. Put simply, the results showed that gender factor does not moderate perceptions of stress among prospective English teachers.

Table 3. Relationship between perceptions of primary stress and gender

Variables	Gender	N	Mean	SD	T	df	Sig.
Correct answers	Male	18	15.00	2.82	-.58	56	.560
	Female	40	15.45	2.65			

• **RQ #3 Does age factor play any significant role in participants' perception of primary stress in initially extended simple sentences?**

By the same token, an independent samples t-test was conducted to find out whether or not prospective English teachers' perceptions of stress in simple extended sentences differ with respect to their age. The results showed no significant difference in the participants' perceptions in relation to their age,  $t(56) = -1.73$ ,  $P > .05$ . As shown in Table 4, however, the results of group statistics reported high mean scores for correct answers in age group '20' ( $M = 16.00$ ,  $SD = 2.90$ ). This suggests that age is not an important factor in shaping and influencing students' performance. As seen, compared with the age group of '19', the older students had higher mean scores in their perceptions of stress in simple extended sentences though the magnitude of the differences in mean scores did not reach to a statistically significant level.

Table 4. Relationship between perceptions of primary stress and age

Variable	Age	N	Mean	SD	F	df	Sig.
Correct answers	19	33	14.79	2.50	1.97	3,54	.130
	20	25	16.00	2.90			

Therefore, the results of inferential data analysis indicated that gender and age do not moderate the students' perception of stress patterns in initially extended simple sentences although there were some slight differences in the mean scores of the participants. In other words, no statistically significant results can be drawn from the differences in mean scores so as to differentiate the participants by their gender and age.

- **RQ #4 Do the students need a remedial teaching as a listening comprehension activity?**

Drawing upon the findings of the study, it is concluded that our students have serious problems in perceiving stressed words and are in urgent need of receiving remedial training in order to improve their knowledge of and potentials in perceiving stress patterns in these simple sentences. What is of the utmost significance here is the unsatisfactory level of participants' knowledge and awareness of the intonation as an important factor in developing a good pronunciation, especially taking care of intonation patterns in initially extended simple sentences. Therefore, it is imperative to capture the problematic areas in pronunciation courses provided by the departments at the early stages of professional training in teacher education programs through listening comprehension activities. This will help the prospective English teachers to overcome their stress and intonation problems and enhance their pronunciation through remedial teaching.

### 3. Conclusions

According to the first research question, a great majority of the first year students (77%) majoring English as a foreign language have serious problems in perceiving stressed words in initially extended simple English sentences. In relation to the second research question, an independent samples t-test (table 2) revealed no significant differences between the male and female groups. The results of the third research question showed no significant difference (table3) in the participants' perceptions in relation to their age in shaping and influencing students' hearing performance.

The analysis of the results of the third research question indicate that our students have serious problems in hearing the stressed content words and are in urgent need of receiving remedial training in perceiving the primary stress patterns in extended simple sentences, which will aid the prospective English teachers to overcome their stress and intonation problems and enhance their pronunciation through remedial teaching. Language typology is also responsible for this kind of failure because Turkish is a syllable-timed language, which contrarily produces negative impacts on the hearing mechanisms of Turkish participants. It is both crucial in internalizing the pronunciation and intonation of English, which has stressed-timed patterns in which words, phrases, clauses, and sentences don't all have the same level of prominence.

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