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Determining The Intonation Contours of Compound-Complex Sentences Uttered by Turkish Prospective Teachers of English

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Abstract

In academic speaking and writing, compound-complex sentences are hardest to articulate and write because they are longer and require certain pauses via chunking information into smaller units for nuances of emphasis in the flow of sentence so as to promote the audibility and perception. By structure, a sentence with at last two independent clauses plus one dependent clause is called a compound-complex sentence. Since the compound-complex sentences combine elements of compound and complex sentences, they are the most sophisticated type of sentences that can be used in speech or writing. Native speakers can break clauses in sentences into intonation units (or meaning units) of different lengths by depending on their own intended meaning. The aim of the research is to pinpoint where 30 freshmen of the English language Education Department of Faculty of Education at Hacettepe University in the Department of English Language Education insert the pauses (sustained juncture phonemes) as intonation boundaries in the structure of compound-complex sentences. In this research, the corpus will consist of 15 compound-complex sentences with two main clauses and one subordinate clause. They will be downloaded from Longman Dictionary of English (with CD) by means of Audacity downloading program 1.2.6, which are uttered in 44100Hz in North American English (NAE). By the principles of Error Hunt Approach and Advanced-learner Approach, these 15 sentences will be compared and contrasted with the recorded utterances of 10 PhD students to determine the pausing skills of Turkish professional teachers of English.

1. Introduction

A compound-complex sentence is the longest sentence type possible in English. It very common in English and requires specific attention for its intonation. It is made from at least two independent clauses and one or more

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dependent clauses, all of which complete a full thought. That is why many experienced writers or speakers use a variety of compound-complex sentences to make their speech and writing interesting and lively by means of connecting the sentences by certain conjunctions. To achieve it, it must be borne in mind that the grammar, the structure and intonation of simple sentences, compound sentences, and complex sentences must be mastered first. In their structure, simple sentences are joined by conjunctions into complex sentences, which, in, turn are compound-complex sentences again by coordinate conjunction, correlative conjunctions, and subordinate conjunctions. This syntactic shape is essential in representing complex relationships, argumentative claims, and descriptive ideas. It is also probably true that the ability to use compound-complex sentences elevates a writer's credibility: it demonstrates that he or she can bring together in a single sentence a range of different pieces of information and order them in relationship to each other (Rosenwasser & Stephen, 2012; Altenberg & Vago, 2010). Their use is commonly encountered in analytical and academic writing and speech.

1.1. Grammatical structure of compound-complex sentences

Adjective clauses, adverb clauses, and noun clauses actively partake roles in their structure, and only in this make up they consists of two or more independent clauses and one or more dependent clauses. Co-ordinate conjunction, subordinate conjunctions, correlative conjunctions and conjunctive adverbs join the compound-complex sentences. The compound-complex sentence is so named because it shares the characteristics of both compound and complex sentences (Random House Webster's Pocket Grammar, 2007). A compound-complex sentence is a combination of one or more compound sentences and one or more complex sentences. The word compound means that the sentence has two or more independent clauses, and the word complex means that the sentence means one or more independent clauses. The following examples are downloaded from Longman Dictionary of English (with CD) and Text to speech labs by means of Audacity downloading program 2.0.5, which are recorded in 44100Hz in North American English (NAE) in form of Audio Tract mono, 32- bit float. Here are some examples:

I bought the jacket that you like, but it was too expensive.
    [Main clause1] [sub. clause] [main clause2]
Independent clause 1   dependent clause 1 Independent clause 2

/ [2]I bought the jacket that you [3]like[2] → [2]but it was [3]too expensive[1] ↘ /

Figure 1. Audacity sound wave for "I bought the jacket that you like, but it was too expensive."

Hatice explained how Turkish coffee is made**, and we practiced her techniques at home.**
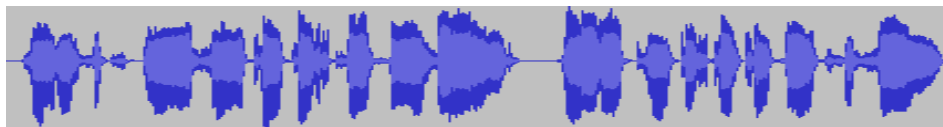[Main clause1]   [sub.clause]   [main clause2]
Independent clause 1   dependent clause1   Independent clause 2

/ [2]Hatice explained how Turkish coffee is [3]made[2] → [2]and we practiced her techniques at [3]home[1] ↘ /

Figure 2. Audacity sound wave for "Hatice explained how Turkish coffee is made, and we practiced her techniques at home."

My father went fishing, but my mother stayed home because she wanted to be there
  [Main clause1]   [Main clause 2]   [Sub.clause 1]

Independent clause 1   *Independent clause 1*   *dependent clause 1*
when my elder brother arrived from England.
 [Sub.clause 2]
dependent clause 2

A summer vacation should be restful, but many people take vacations that are never restful.
[Main clause1]   *[Main clause 2]*   *[Sub.clause 1]*
Independent clause 1   *Independent clause 2*   *dependent clause 1*
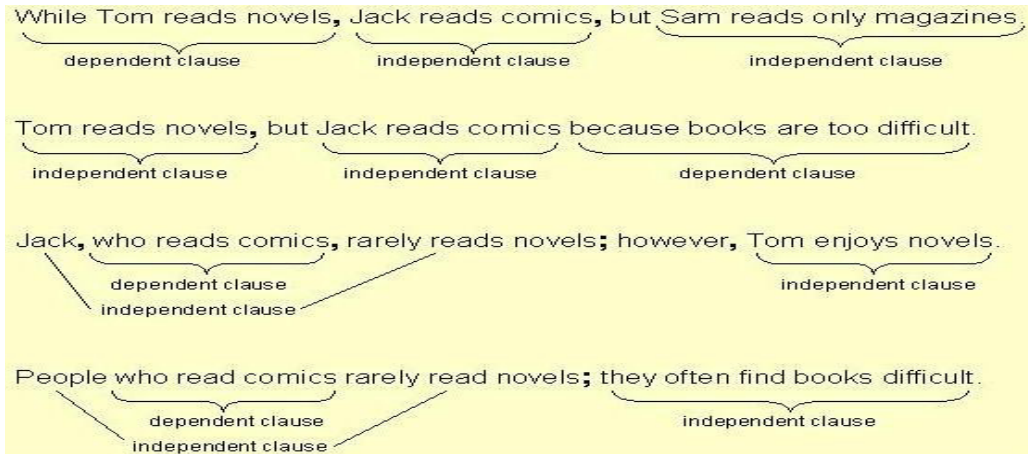

Figure 3. Examples of dependent and independent clauses (Townson, 2014)

   Then, a compound-complex sentence is a compound and complex sentence joined together by means of some punctuation marks.

1.2. The intonation of compound-complex sentences

   A compound-complex sentence is comprised of at least two independent clauses and one or more dependent clauses. Because compound-complex sentences are normally longer than other sentences, it is very important to punctuate them correctly, it is at this junction that intonation comes in (Brown, 2014; Mannell & Harrington, 2014). In other words, conjunctions are primary signalers of intonation breaks where the speakers hold their breath and make a short or long pause. Coordinate conjunctions like for, and, nor, but, or, yet and **s**o (also called fanboys), subordinate conjunctions like after, although, as, because, before, even though, if, as if, since, though, unless, until, till, when, whenever, whereas, wherever, while, correlative conjunctions like both... and, not only...but also, either…or, neither...nor, whether...or; conjunctive adverbs like, accordingly, in fact, again, instead, also, likewise, besides, moreover, consequently, namely, finally, nevertheless, for example, otherwise, further, still, furthermore, that is, hence, then, however, therefore, indeed, and thus; and relative clauses starting with a pronoun like who, whom, which, that all work as intonation boundaries.

1.3. Intonation breaks

   Speakers can break sentences into intonation units (or meaning units) of different lengths by giving a temporary sense of pausing, which is called sustained terminal juncture. Even though conjunctions signal the place of pausing, it is still at the convenience of the speaker where to make a pause by chunking information into smaller units for nuances of emphasis for better intelligibility. In normal writing, pausing would be indicated with punctuation marks,

but at speech the speaker is free where to make a pause to divide the flow of speech into smaller units for nuances of emphasis by insert breaks. So in speaking we rely on phonetic cues for discerning intonation boundaries. In a sentence, intonation breaks tell you where the speaker is at the moment, where he is going, how he is speaking, and if he is finished with his speech or not.

2. Theoretical background

The intonation of compound-complex sentences is a much underresearched area. There is not a single study on this issue. According to Church (1967: 434) phonological rules based on "stress-terminal pattern" (the principle that a phonological phrase has one primary stress and one terminal juncture requiring a mark of punctuation) can be used to improve punctuation in composition. He uses terminal juncture phonemes to show the pauses in compound and complex sentences, which can be transferable to English conversations as well. His demonstrations are applicable to the analyses of compound-complex sentences. Similarly, Cauldwell and Hewings (1996) give clear examples of intonation of simple, compound, and complex sentences by using the signs of Trager and Smith (1951). Wells (2007) gives similar examples to Chuch's by giving the primary, secondary, tertiary, and weak stress phonemes.

2.1. Categories of utterances by compound complex sentences

In the following examples, punctuation marks are direct clues the place of pauses:

When I try to explain, it comes out all wrong, and she gets mad.
$/^2$When I try to ^{3}ex**PLÁIN**$^2 \rightarrow{}^2$ it comes out ^{3}**ÁLL** wrong$^2 \rightarrow{}^2$and she gets ^{3}**MÁD**^{1} /

I cannot tell whether she is old or young, for I have never ↘ seen her.
^{2}I cannot ^{3}**TÉLL** whether she is old or young$^2 \rightarrow{}^2$for I have never ^{3}**SÉEN** her^1 /

He threatened to resign, but I'm sure it's a bluff.
$/^2$He threatened to re^3**SÍGN**$^2 \rightarrow \rightarrow{}^2$ but ^{3}**Í**'m sure **it's** a bluff^1/

2.2. Contact Clauses in compound-complex sentences

In the following sentences, there are contact clauses, in which the relative pronoun (who/which/that) are leave out if it is **not** the subject in the sentence. The omitted element is called a zero relative pronoun. The term contact clause was introduced by linguist Otto Jespersen (1909-1949) in *A Modern English Grammar on Historical Principles*, which was first published in England in a book titled *Essentials of English Grammar* (1933, p. 360). It must be noted that contact clauses must appear immediately adjacent to the modified noun phrase. Since they are called **reduced relatives**, they cannot be separated from the relative head by another clause. By means of **contact clauses** the intonation of compound-complex sentences gets shortened because the longer intonation of a complex sentence is made shorter in a quick utterance.

Full sentence:
I know (**that**) you wanted to tell Bill the news yourself but I'm afraid (**that**) I jumped the gun.

Contact clause:
$/^2$I ^{3}**KNÓW** you wanted to tell Bill the news yourself$^2 \rightarrow{}^2$but I'm afraid I^3**JÚMP**ed the gun^1 ↘ /

2.3. Intonational merging of a complex sentence in compound complex sentence

The original form of the sentence may be in the following form:

You can argue till you're blue in the face, but I won't change my mind.

/²You can ³ÁRgue² → ² till you are ³BLÚE in the face² → ²but I ³WÓN't change my mind¹ ↘ /

But the merging process changes the following intonation form of the complex sentence.
/232→232/ into /232→/
/²You can argue till you are ³BLÚE in the face² → ²but I ³WÓN't change my mind¹ ↘ /

Another example: the original form of the sentence may be in the following form:

I thought that I Caroline would be happy, but she got really mad at me.
/²I ³THOUGHT² → ²that Caroline would be ³HAPPY² → ² but she got really ³MAD at me¹ ↘ /

But the merging process changes the following intonation form of the complex sentence.
/232→232/ into /232→/:
/²I thought Caroline would be ³HÁPPY² → ² but she got really ³MÁD at me ↘ /

2.4. Defining and non-defining clauses

The intonation of compound-complex sentence allows for an endless variety of sentence patterns with different meanings, from very basic to highly complex.

- My uncle, who lives down the street, is rich, but he has always been a thrifty person in all his life. (The speaker has only one uncle)

/²My ³ÚNCLE² → ²who³lives down the STRÉET² → ² is ³RÍCH² → ²but he has always been a thrifty person in ³ÁLLhis life¹ ↘ /(only one uncle)

Figure 4. Audacity sound wave for "My uncle, who lives down the street, is rich, but he has always been a thrifty person in all his life."
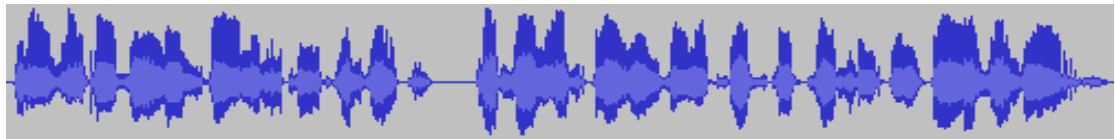

/²My uncle who lives down the street is³RÍCH²→²but he has always been a thrifty in ³ÁLL his life¹ ↘ / (The speaker has more than one uncle)

Figure 5. Audacity sound wave for "My uncle who lives down the street is rich, but he has always been a thrifty person in all his life."

2.5. Clauses with adverbial conjunctions and coordinate conjunctions

Depending on the existence of the types of conjunction, there may be two or more pauses in the same sentence.
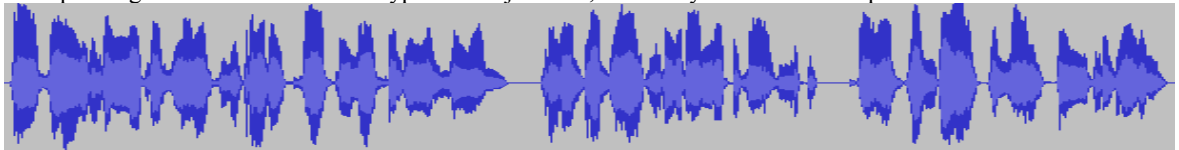
/²Although Jane did ³NÓT study properly for the exam² → ²she did NÓT cheat on the test² → ²for it was³NÓT the right thing to do¹ ↘ /

Figure 6. Audacity sound wave for "Although Jane did not study properly for the exam, she did not cheat on the test, for it was the right thing to do."
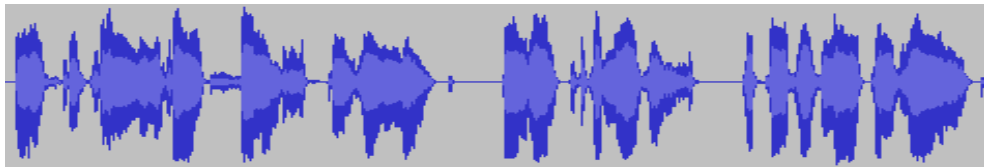
/²After Jane and Jack³**FÍ**nished their homework²➙ ²they went to the **MÓ**vies²➙²but they did ³**NÓT** enjoy it¹↘ /

Figure 7. Audacity sound wave for "After Jane and Jack finished their homework, they went to the movies, but they did not enjoy it."

So, like the compound sentence, the compound-complex has two main clauses. Like the complex sentence, it has at least one subordinate clause. The subordinate clause can be part of an independent clause (*Random House Webster's Pocket Grammar*). The students of English must remember that a compound-complex sentence contains at least 2 complete sentences joined by a conjunction.

3. Methodology

This research is designed in form of one group one post- test, which aims to measure the responses of 30 freshmen who have taken up Listening and Articulation I and Listening and Articulation II. They have specially studied 9 hours on pausing in English utterances. The post-test aims to explore their responses on hearing the pauses in compound-complex sentences with two main and one subordinate clause.

This research will address the following questions:
1. Do the students have problems in hearing pauses in sentences with contact clauses?
2. Do the students have problems in hearing pauses in sentences without contact clauses?
3. Do the students have problems in hearing pauses in sentences without punctuation?
4. Do the students have problems in hearing pauses in sentences without contact clauses?

3.1. Participants

A total of 30 first year students majoring English as foreign language participated in the study. There were 25 female (83.3%) and 5 male (16.7%) students in the study and their age ranged from 19 to 20.

Table 1. Descriptive statistics for the participants

Variables		N	%
Gender	Male	5	16.7
	Female	25	83.3
Age	19	27	90
	20	3	10

3.2. Design

An after-only (post-test only) design was used for the present study. That is, the students received 9 hours of treatment by means of Longman Dictionary of American English (2009) and Longman Dictionary of Contemporary English (2012), which give several sentences, uttered by native speakers of English and identified   the places of pause in sentences with and without contact clauses, and sentences without punctuation marks. At the end of the treatment, a post-test which consisted of 25 sentences was administered to measure the students' ability to perceive the place of pauses in the sentences.

3.3. Instrument

The data for this study were gathered using a post-test comprising 25 sentences of which 10 sentences contained contact clauses, 10 sentences without contact clauses and 5 sentences with no punctuation marks. The participants were asked to listen to the sentences and find out the place of the pauses in the sentences and then check the correct options in their answer sheets. Each question was aimed to test students' capability in perceiving the place of pauses in English sentences.

3.4. Data collection and analysis procedures

The data for this study were collected during the second semester of the 2013-2014 academic year. 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. An independent samples t-test was used to assess the role of gender and age differences in perceptions of pauses in sentences with and without contact clauses, and sentences no punctuations in them.

4. Results and discussion

Research Question #1: Do the students have problems in hearing pauses in sentences with contact clauses?
The results of descriptive statistics, figure 8, revealed that 91% of the students rated the items correctly, indicating that more than nine in ten of them do not have problems in hearing the pauses in sentences with contact clauses. Only 9% had problems in hearing pauses in these types of clauses.
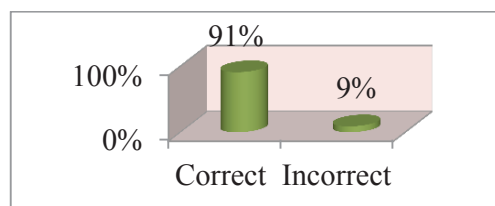

Figure 8. Sentences with Contact Clauses

Research Question #2: Do the students have problems in hearing pauses in sentences without contact clauses?
Similarly, as shown in Figure 9, 89% of the students scored correctly items related to the identification of pauses in sentences without contact clauses. This suggests that nearly 9 in ten of the students have no difficulty in hearing and identifying pauses in sentences without contact clauses and only a small number of them still lag behind their peers.
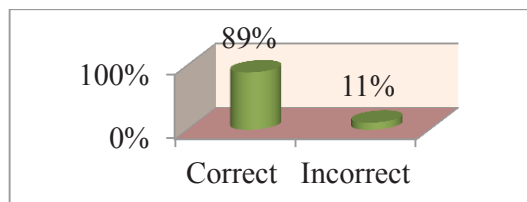

Figure 9. Sentences with Contact Clauses

Research Question #3: Do the students have problems in hearing pauses in sentences without punctuation?
The findings also revealed that 85% of the students rated the items positively. This implies that only 15% of the participants have difficulty in identifying pauses in sentences without punctuation. (Figure 10).
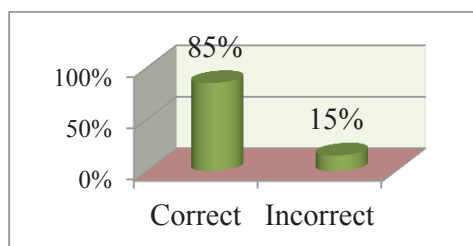
Figure 10. Sentences without punctuation marks.

Research Question #4: Do gender and age differences cause problems in hearing pauses in sentences with and without contact clauses as well as sentences without punctuation?

A comma **(,)** generally indicates pauses in speech although it is not obligatory. The findings showed statistically significant differences, t (28) = -2.20, p <.05), between male and female students only in their perceptions of pauses in sentences with contact clauses, with males having higher mean scores (M = 9.80, SD = .44) than females (M = 8.92, SD = .86). This suggests that gender variable can be regarded as one of the factors that have the potential to predict second language learners' performance in identification of pauses in sentences with contact clauses. The results also revealed significant differences between age groups, t (28) = 3.70, p <.05) in their ability to capture pauses in sentences without punctuation. The participants aged '19' had higher mean scores (M = 4.55, SD = 1.33) than those who aged '20' (M = 1.33, SD = 2.30). This implies that the younger the language learners are, the more they are capable of identifying pauses in sentences without punctuation. In other words, earlier years of education is the best time for capturing the existing problems in dealing with these sentences and offering remedial courses so as to help the learners to cope with these problematic sentence types.

5. Conclusions

The information provided in a perceiving the places of pausing among the clauses are crucial in understanding the meaning of the sentence. There is very little information on the intonation of compound complex sentences (Silverman, 2006; Roach, 2009; McCully, 2009; Ashby, 2011; Gussenhoven & Jacobs, 2012; Davenport & Hannahs, 2010). Many non-native students have difficulties in determining when and how to place the pauses or sustained junctures while speaking and in diagnosing their places in compound-complex sentences. This is not to say that the compound-complex sentence invites confusion: on the contrary, when handled carefully, it has the opposite effect--it clarifies the complexity and enables readers to see it clearly (Rosenwasser & Stephen, 2012). As its name suggests, these types of sentence combine several intonation features of longer sentences. In terms of perception, 90% of the participants correctly detected the places of pausing. In terms of production, they may have serious errors whose determination requires another research. It must be noted that understanding and using different types of sentence structures helps us to add variety and interest to our speaking abilities and writing skills. A common saying indicates that when it comes to compound-complex sentences, the writer's creativity is the only limit!

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