



L1 and L2 Read Speech Habits: Pause Patterns from a Crosslinguistic Perspective

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ABSTRACT

Studies on L1 and L2 productions from the same participants might contribute significantly to language acquisition process. In this study, the researchers investigated read speech pausing patterns in coordinating conjunctions produced by Turkish, Swahili, Hausa, and Arabic speakers of English. The data for the study was collected in two phases; in the first phase, the participants read out a short story in English, and in the second (a follow-up phase), independent sentences were produced in their mother tongues. In total, 2995 pauses in 1498 coordinating conjunctions were measured through Praat, and findings obtained from the data were analyzed by The Paired Samples t-Test. The results showed that pauses differed in favor of the preceding position and differences were observed to be statistically significant. Speakers of the same mother tongue backgrounds performed similar pausing patterns, which could be an important indicator of L1 read speech habits to L2 productions.

Keywords: Pause, fluency, conjunctions, read speech, language acquisition.

INTRODUCTION

Our speech is the backbone of communication manifesting itself in various styles. We express our thoughts by means of read or spontaneous speech. Our choice is sensitive to our context, and as a result, it becomes a necessity to employ different dynamics during speech. These dynamics do not happen in a vacuum; rather, our speech is continuously affected by these variables. As regulators of the speech, their effects are visible in our performance. Analysis of our speech fragments indicates a great deal about these variables.

Speech stream does not fill time continuously and prosodic features are viewed as the punctuation of speech. Pauses are periods of silence in our speech and they happen as natural feature of speech. There are frequent gaps when we produce utterances (Oliveira, 2002). Therefore, a pause is a silence in a continuous speech. During a speech, if a person is silent because other person is speaking, we do not consider this silence as a pause. Additionally, hesitations and gaps, which are common feature of *spontaneous speech*, are not considered as pauses within the scope of our research. Then, we might also consider the difference between a silence and a pause. A silence is a “complete absence of sound; a period without any sound, complete quiet”, whereas a pause is described as “a short period in which a sound is stopped before starting again” (Cambridge Dictionary Online, 2019).

The dynamics of speech, the prosodic features in particular, can contribute significantly to enlighten the underlying blueprint resulting from contextual differences. Duration of pauses

in a continuing speech can show the effects of these differences. Performances in fluency and pauses are not random, instead, they are connected to high cognitive planning and reveal themselves in our speech (Götz, 2013). Although pauses constitute a central element of speech production, studies on pauses by comparing L1 and L2 productions have not received considerable attention in second language acquisition research.

Learners who are not native speakers of English, and those who have not been exposed to authentic language in their early stages may prefer to use their L1 linguistic rules in their L2 production. In this case, it is expected from a non-native speaker of English to employ the corresponding prosodic features in their L1, which may lead to an inappropriate L2 pattern. In this study, it is intended to investigate these patterns occurring in contexts where English is second, third or a foreign language.

Defining Pauses

Segalowitz (2010) define fluency as characteristics of real-time speech behaviour which we can observe and measure. Unlike spontaneous speech, there are punctuations in texts which signal the boundaries between words and sentences. Long or short pauses between boundaries function as punctuations in texts. These are syntactic pauses, and speakers adjust pause duration to align with these punctuations. As punctuations help us see the boundaries in texts, we do not try to think about what to say next. The cognitive load required for planning next utterance is kept minimum and our productions becomes more fluent with relatively less any hesitations or speech break-ups. Naturally syntactic pauses appear in several places while we are in a conversation; these can be punctuations signaling the end of a sentence or clauses. We can notice them before or after coordinating conjunctions such as ‘and, but, or, so’ or subordinating conjunctions like ‘when, while, because’. We can also see them before and after adverbial clauses like ‘when, how’ and ‘where’ (Goldman-Eisler, 1968).

Studies in *read speech* with native speakers of English indicated that native speakers pause longer in preceding conjunctions than in following positions, and these duration differences were found to be statistically significant (Bada, 2006; Kılıç, 2013). Surprisingly, non-native speakers of English also tended to follow the same pattern when they read aloud written texts regardless of their mother tongue(s). This probably resulted from the fact that cognitive aspects of speech did not take much place in their speech, and they followed or imitated native speakers of English.

Pause Studies in the World

After Goldman-Eisler (1968) carried out several studies on the importance of pauses, researchers all over the world began to analyse the silences in our speech. Whether they are syntactic or cognitive, researchers have been carrying out studies in order to have a clearer insight towards the nature of our speech and the factors that interact with our speech.

When we speak, it is necessary to access word from mental lexicon and this is apparently a difficult considering the frequency of the word to be processed. If it is a commonly used word, then this process will not take long time. However, if the target word is a less common one, then, this will require relatively longer time. Although there are considerable studies on pauses, studies on read speech, especially by comparing and contrasting this issue from L1 and L2 perspective is quite limited. Earlier experiments on hesitations indicated that there are usually pauses preceding content words. There are more and longer pauses before low frequency words (Maclay & Osgood, 1959; Mercer, 1976).

While earlier experiments showed that these pauses are not random but rather part of process, newer studies also revealed that demographic differences also seem to affect the duration of pauses. Kendal (2009) studied pause variation among American English speakers

and findings stated that speech rate and pauses differed significantly at social level and these pauses were determined by cognitive process. Lunholm Fors (2015) also studied role of pauses in turn-taking and results of this study showed that functions of pauses differed and they were context-bound. The duration of pauses correlated with pause type, and the speakers modified length of the pauses according to the person they interacted. Naturally, the duration of pauses affected the flow of speech, and this indicated that pause lengths varied across speakers, pause types and conversations.

Pause studies in Turkey are relatively new and research comparing and contrasting pause performance of Turkish native speakers were investigated by Bada (2006). In this study, the researcher measured the pausing differences before and after *that* in the use of that clauses of both English native speakers and Turkish non-native speakers of English. Findings of this study suggested that while pausing before *that* was measured to be much longer than in the following position in the production of native speaker group, it was observed to be the opposite with Turkish group. While this study examined the *read speech*, another research by Bada & Genç (2008) focused on the differences between pausing preceding and following 'to' in both *spontaneous* and *read speech* by native English speakers. Results of this research display a significant difference between *read* and *spontaneous speech*; while pausing before was observed to be significantly longer than the following position in *read speech*, it was found just the opposite in *spontaneous speech*.

On the other hand, Genç, Özkan & Bada (2010) carried out an interesting study by examining Obama's G-20 summit speech in terms of the difference between *read* and *spontaneous speech*. They investigated the pause before and after 'to' particle and the results showed that the pause in *read speech* was longer than that in *spontaneous speech*. Findings of this research correlate with a following study in which Genç, Mavaşoğlu & Bada (2011) examined the differences between pausing preceding and following the *que* particle both in *spontaneous* and *read speech* of native speakers of French. Analysis of the data showed that pausing preceding *que* was significantly longer than the following position in *read speech*.

Kılıç (2013) conducted a quasi-experimental study on pauses preceding and following adverbial clause conjunctions in English. In this study, the researcher tried to compare and contrast *read speech* pauses between native speakers of English and Turkish speakers of English. Findings showed statistically significant differences between speakers; native speakers of English paused significantly longer preceding all conjunctions, whereas it was the opposite for Turkish speakers. Considering these differences, the researcher applied a treatment to Turkish speakers in order to raise awareness of native speaker forms. After the treatment, the speakers began using native speaker forms more frequently.

Learning a new language, following the acquisition of the first, builds on prior linguistic performance. Cross-linguistic spoken language research becomes crucial if we want to learn the effects of various linguistic backgrounds on learners' productions. Otherwise, we tend to generalize the phenomena found in one language as normative for speakers of other languages.

In this study, we intended to show how these effects are manifested in language production of speakers of English as a foreign language through measurements and analyses of *read speech*. Moreover, we endeavored to explain possible causes of speakers' speech performance by investigating the relationship between such a performance and speakers' mother tongues. Therefore, we have following research questions for this study:

1. Does the length of a pause preceding coordinating conjunctions differ from a pause following these conjunctions in L2 *read speech* of Turkish, Swahili, Hausa and Arabic speakers of English?
2. If there are differences, does it also differ in their L1 *read speech*?

METHODOLOGY

Research design and sampling

Our research is based on a descriptive design in order to get an in-depth insight analysis for our research questions. In social sciences, descriptive studies require up-close and detailed investigation of a phenomenon and its contextual relations (Maxwell, 2013). In this research, we wanted to examine the pausing patterns within different cross-linguistic contexts. As Tyler Kendall (2009) stated in his research, pause and speech rate differ according to region, ethnicity and gender. Considering speakers' accessibility for the main and follow-up studies, we preferred a convenient sampling method for this study. Convenient sampling is a kind of non-probability research technique in which participants are selected due to accessibility and proximity to researchers (Birnbaum et al, 2003). Keeping this in mind, we chose Turkish, Swahili, Hausa and Arabic speakers of English, who all were undergraduate or graduate students in Turkey at the time we carried out our research. These languages belong to different language branches. They all have their specific and varied linguistic features. An overview about demographic information about participants is presented in Table 1:

Table 1: Demographic information about participants

Characteristic	Turkish	Swahili	Hausa	Arabic
Age (\bar{x})	23.6	22.3	23.3	22
Male (N)	5	6	7	7
Female (N)	5	4	3	3
Experience in Years (\bar{x})	11	17.8	17.5	13.6
English Level	B2-C1	C1-C2	B2-C2	B2-C1

In order to carry out the study with independent users of English, the participants were randomly selected among students who studied English as a medium of instruction during schooling and had already passed English proficiency exam. In addition to the exam results, the participants also provided their background with English during demographic questions. Therefore, the experts reported minimum English level as B2 during the study.

Instruments

Since the speakers require some time to plan the upcoming sentences, pauses before and after conjunctions in a continuous speech stream are more appropriate for analysis. By connecting two independent sentences, the researchers decided to measure pauses in coordinating conjunctions. Since these conjunctions connect similarities and differences or choices (and, but, or) together with cause-effect relations (so), the participants would require time to prepare upcoming speech material and thus provide the necessary pauses in target languages. Considering this in the mind, we decided to measure coordinating conjunctions in a short story, *Little Red Riding Hood* by Brothers Grimm. The text was 1474 words, and included a variety of uses for these conjunctions.

In order to support the claims in the main study, the researchers also carried out a follow-up study. This phase of the research study consisted of collecting data on pauses from corresponding coordinating conjunctions in speakers' L1. Two expert native speakers from each language were asked to prepare sentences that included corresponding coordinating conjunctions, where it is possible considering the linguistics features of those languages. The experts prepared six different sentences for each conjunction as sentence connectors in order to have a better average of pause duration. By conducting this phase, it was intended to see if it was possible to talk about a cross-linguistic influence from mother tongue patterns on English speech performance.

Procedure

Our research was conducted in two phases; main study and follow-up. First of all, the researchers invited the participants for the read speech part, where they read aloud the short story *Little Red Riding Hood* by Brothers Grimm. The recording session lasted around 15 minutes for each participant and our total recording was around 7.5 hours for read speech spanning 2.5 months. Follow-up study consisted of collecting data on pauses from corresponding coordinating conjunctions in speakers' L1. Following this, the researchers asked five participants from each language group to read aloud these sentences and their voice was recorded.

Data Analysis

In order to have the pause duration preceding and following each conjunction, we used *Praat*, cutting-edge speech analysis software which allows conducting various linguistic analyses for researchers.

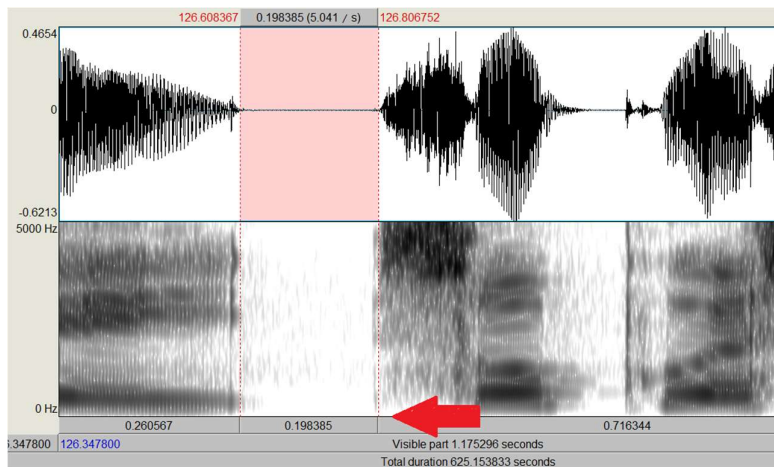


Figure 1: Measuring a pause preceding 'so' conjunction in read speech

The red arrow in Figure 1 shows that the pause preceding the 'so' conjunction in read speech was measured as 0.198 seconds in this example. Therefore, we can say that this is a precise and reliable tool to measure pause durations. In his series of experimental studies, Goldman-Eisler (1968) determined the minimal cut-off point of .025 seconds to consider a silent as a pause. In this researcher, we also followed the same cut-off criteria. The measurements of pauses gathered from recordings were transferred to *SPSS* software for statistical analysis and after that, the researchers conducted Levene's test to obtain information whether variances of groups were equal. The results were statistically insignificant for all

coordinating conjunctions ($p \leq 0.05$): for the ‘and’ conjunction, $p = .314$; for ‘but’, $p = .335$; for ‘or’, $p = .229$; and for ‘so’, $p = .410$. These findings suggest that there was a statistically insignificant difference among groups when equal variances were assumed. This enabled the researchers to carry out a parametric test in this study. Therefore, we analyzed our data by utilizing a Paired Samples t-test.

FINDINGS

Analysis of the main research presents the duration of pauses in preceding and following positions of coordinating conjunctions. Paired Samples t-test analysis illustrates whether these pauses were statistically significant or not. The findings related to *read speech* are displayed in a tabular form regarding each conjunction in question. The count of conjunctions, pauses and duration of speech are presented in Table 2:

Table 2: The count of conjunctions, pauses and mean duration of recordings

f	Turkish	Swahili	Hausa	Arabic
And	199	199	196	196
But	137	136	137	137
Or	60	59	57	58
So	108	108	107	105
Subtotal	504	502	497	496
Duration	1.45 h	1.23 h	1.42 h	2.05 h
TOTAL	1.999 pauses; 1000 conjunctions; 6.9 hours speech recordings			

Table 2 illustrates the pauses preceding and following coordinating conjunctions *read speech* recordings of Turkish, Swahili, Hausa and Arabic speakers of English. In total, we analyzed 2995 pauses in 1498 conjunctions including follow-up study.

The ‘and’ conjunction

The ‘and’ conjunction links two similar items, and paired samples t-test results for the ‘and’ conjunction when conjoining two sentences in *read speech* are presented in Table 3:

Table 3: Paired samples t-test results for ‘and’ as a sentence connector in read speech

Pauses	f	\bar{x}	SD	Df	t	p
Turkish						
PP	160	.299	.263	318	9.14	.000
PF	160	.093	.108			
Swahili						
PP	159	.198	.212	316	6.756	.000
PF	159	.077	.077			
Hausa						
PP	157	.148	.139	312	5.56	.000
PF	157	.077	.077			
Arabic						
PP	157	.201	.209	312	4.67	.000
PF	157	.106	.147			

Note: Significance level is $p \leq 0.05$

‘PP’ was used as an abbreviation for ‘Pause Preceding’ and ‘PF’ for ‘Pause Following’. Table 3 shows that the mean duration of pauses in all language groups was longer in the preceding position than it was in the following position and this difference was found to be statistically significant regardless of speaker groups.

We can infer from Table 3 that speakers from all languages paused longer in the preceding position. Native speakers of English paused longer preceding this conjunction in *read speech*, and all speakers performed a native-like production. Turkish speakers also paused much longer than speakers of other languages in the preceding position; it was even twice as long as that of Hausa speakers. Relying on our follow-up study, we can state that this may have resulted from L1 transfer to L2.

The ‘but’ conjunction

The ‘but’ conjunction connects contrasting ideas of two independent clauses in English. The values related to Paired Samples t-test for the ‘but’ conjunction in *read speech* are presented in Table 4:

Table 4: Paired samples t-test results for the ‘but’ conjunction in read speech

Pauses	f	\bar{x}	SD	Df	t	p
Turkish						
PP	137	.356	.290	221	6.808	.000
PF	137	.160	.172			
Swahili						
PP	136	.250	.259	214	4.188	.000
PF	136	.143	.147			
Hausa						
PP	137	.323	.269	197	7.041	.000
PF	137	.142	.131			
Arabic						
PP	137	.249	.218	223	5.267	.000
PF	137	.134	.131			

Note: Significance level is $p \leq 0.05$

Findings indicate that speakers of all language groups paused longer preceding the ‘but’ conjunction in *read speech*. This mean duration was found to be statistically significant for all language groups. Participants here performed a native-like pattern in their productions. Also, the mean duration of pauses in both preceding and following positions were observed to be similar between Turkish and Hausa speakers. Additionally, the mean duration was also closer between Swahili and Arabic. This pattern may have resulted from the fact that in their mother tongues, Turkish and Hausa speakers use rather similar function words as sentence connectors: ‘ama’ in Turkish and ‘amma’ in Hausa (Underhill, 1976; Jaggar, 2001). On the other hand, such a similarity exists between Swahili and Arabic speakers regarding the function words, ‘lakini’ (in Swahili) and laakin لَكِن (in Arabic) (Polome, 1967; Ryding, 2005; Prochazka, 2010). It is possible that speakers of these languages displayed such language production similarity due to a transfer (Gass & Selinker, 1992; Odlin, 1989) from their L1 reading habits into English.

The 'or' conjunction

The 'or' conjunction is used to give alternatives among choices. It can connect both sentences and nouns. The t-test results for the 'or' conjunction as a connector of sentences in *read speech* are presented in Table 5:

Table 5: Paired samples t-test results for 'or' as a sentence connector in read speech

Pauses	f	\bar{x}	SD	Df	t	p
Turkish						
PP	30	.289	.370	58	2.620	.011
PF	30	.103	.118			
Swahili						
PP	29	.254	.246	56	3.461	.001
PF	29	.091	.059			
Hausa						
PP	30	.160	.155	58	1.799	.077
PF	30	.101	.092			
Arabic						
PP	30	.101	.091	58	.428	.670
PF	30	.091	.095			

Note: Significance level is $p \leq 0.05$

Analysis of the Paired Samples t-test results indicate that speakers of Turkish, Swahili, Hausa and Arabic paused longer preceding the 'or' conjunction as a connector of sentences in *read speech*. While the difference between two positions was found to be statistically significant between Turkish and Swahili speakers, it was not found to be so between Hausa and Arabic speakers.

Since speakers do not usually take time to plan for upcoming text in *read speech*, the tendency towards pausing much longer compared to other speakers was observed among Turkish and Swahili speakers, in that they paused much longer in the preceding position than they did in the following position.

As for the Hausa and Arabic speakers, although they paused longer in the preceding position, this difference was not found to be statistically significant and this result may be attributed to the fact that since the two languages are frequent users of asyndetic coordination, such a characteristic may have been transferred to L2 production in reading (Smirnova, 1982; Cowell, 2005). Asyndetic coordination is also very common in Turkish (Lewis, 1967), and we would expect Turkish speakers to equally produce relatively similar pauses between two positions; however, this was not found to be the case, possibly due to the fact that they may have transferred *read speech* patterns in their native language to L2 production.

The 'so' conjunction

The 'so' conjunction is used to show the results or effects of something. It conjoins two sentences that have a cause-consequence relation. Pauses preceding and following the 'so' conjunction in *read speech* were analyzed through a Paired Samples t-test, and results are presented in Table 6:

Table 6: Paired samples t-test results for the ‘so’ conjunction in read speech

Pauses	f	\bar{x}	SD	Df	t	p
Turkish						
PP	108	.394	.298	204	6.859	.000
PF	108	.142	.240			
Swahili						
PP	108	.258	.265	201	3.404	.001
PF	108	.148	.205			
Hausa						
PP	107	.361	.288	196	6.117	.000
PF	107	.147	.216			
Arabic						
PP	105	.228	.178	208	2.888	.004
PF	105	.148	.221			

Note: Significance level is $p \leq 0.05$

Results illustrated in Table 6 indicate that speakers from all language groups paused longer in the preceding position than they did in the following position in *read speech*. This difference was found to be statistically significant in all language groups.

We can infer from the findings that although pauses in *read speech* are syntactic, that is, although speakers did not require time to plan for the rest of the speech, they still paused longer preceding this conjunction. Participants from all language groups employed the same strategy, expected from a native speaker of English. Particularly, in Turkish and Hausa, the duration of pause preceding the ‘so’ conjunction was observed to be twice longer than the following position. Considering L1 *read speech* pattern of Turkish group, obtained from the follow-up study, they may have transferred their L1 *read speech* habits to English.

Coordinating Conjunctions in Native Languages

In this phase of the research, equivalents of 498 coordinating conjunctions in speakers’ mother tongues were found, and the mean durations of 996 pauses were analyzed by utilizing a Paired Samples t-test. *The ‘and’ conjunction in L1*. Equivalent of the ‘and’ conjunction is ‘ve’ in Turkish, ‘na’ in Swahili, and ‘wa’ in Arabic. There is no equivalent of ‘and’ as a coordinating conjunction in Hausa, but the coordination is performed by asyndetic coordination in their speech. Therefore, we used ‘kuma’, which reinforces the agreement in sentences as a substitution. Findings are presented in Table 7:

Table 7: Paired samples t-test Results for the ‘and’ conjunction in L1 read speech

Pauses	f	\bar{x}	SD	Df	t	p
Turkish						
PP	40	.202	.162	78	6.385	.000
PF	40	.035	.032			
Swahili						
PP	34	.193	.222	66	3.220	.002
PF	34	.063	.079			
Hausa						
PP	30	.127	.161	58	.472	.638
PF	30	.104	.217			
Arabic						

PP	30	.065	.052	58	2.365	.021
PF	30	.039	.028			

Note: Significance level is $p \leq 0.05$

Findings in Table 7 reveal that speakers of all groups paused longer preceding the ‘and’ conjunction in their mother tongues, and the duration was found to be statistically significant in *read speech* of Turkish, Swahili and Arabic speakers of English; however, the difference was observed to be statistically insignificant for the Hausa group.

We can infer from these findings that speakers may have transferred their L1 reading habits into English, since these findings were found to be in line with those in their English performance, at least, regarding *read speech*. Although the Hausa group also paused in favour of the preceding position, the duration was not found to be statistically significant in L1.

The ‘but’ conjunction in L1.

The ‘but’ conjunction is translated as ‘ama’ in Turkish, ‘lakini’ in Swahili, ‘amma’ in Hausa, and ‘laakin’ in Arabic. Equivalent of the ‘but’ in those languages derived from Arabic origin. Findings for these conjunctions are presented in Table 8:

Table 8: Paired Samples t-test results for the ‘but’ conjunction in L1 read speech

Pauses	f	\bar{x}	SD	Df	t	p
Turkish						
PP	30	.243	.203	58	3.618	.001
PF	30	.085	.124			
Swahili						
PP	30	.195	.237	58	1.192	.238
PF	30	.129	.188			
Hausa						
PP	30	.171	.184	58	.570	.571
PF	30	.140	.233			
Arabic						
PP	30	.101	.094	58	3.584	.001
PF	30	.037	.024			

Note: Significance level is $p \leq 0.05$

Findings in Table 8 illustrate that speakers paused longer in favour of the preceding position all language groups, and this duration was found to be statistically significant in Turkish and Arabic. However, this difference was statistically insignificant in Swahili and Hausa. We can explain the statistically significant findings in Turkish and Arabic as transfer of L1 reading habits into target language because these findings are also statistically significant in their *read speech* data for the ‘but’ conjunction in target language. On the other hand, we can again see the effect of asyndetic coordination in Hausa. Although findings of L1 reading patterns are statistically insignificant, their performance was in favour of the preceding position and this was parallel to *read speech* patterns in English. Similarly, in Swahili, although a difference was observed in favour of the pause in the following position regarding this conjunction, it was, however, found to be statistically insignificant. The fact that the difference was not statistically significant may bring about an interpretation that in Swahili, when an affirmative sentence is followed by a negative one, coordinating clauses do not have a conjunction and the subjunctive is used as a default mood (Ashton, 1975, Marten, 2006).

The 'or' conjunction in L1.

The corresponding particle for the 'or' conjunction is 'veya' in Turkish; 'au' in Swahili; 'ko' in Hausa, and 'aw' in Arabic. Just like their use in English, they can connect two nouns or two sentences. Findings for the 'or' as a sentence connector in L1 read speech are presented in Table 9:

Table 9: Paired samples t-test results for the 'or' conjunction in L1 read speech

Pauses	f	\bar{x}	SD	Df	t	p
Turkish						
PP	34	.180	.157	66	3.854	.000
PF	34	.060	.088			
Swahili						
PP	30	.257	.331	58	2.220	.030
PF	30	.104	.181			
Hausa						
PP	30	.159	.175	58	1.110	.272
PF	30	.108	.178			
Arabic						
PP	30	.063	.063	58	-.083	.934
PF	30	.065	.089			

Note: Significance level is $p \leq 0.05$

Paired Samples t-test results illustrated in Table 9 indicate that Turkish, Swahili, and Hausa speakers paused longer preceding the 'or' conjunction in their L1. Arabic speakers spared an equal amount of time for both preceding and following the 'or' conjunction. Results in Turkish and Swahili were observed to be statistically significant. However, findings were found to be statistically insignificant for Hausa and Arabic speakers.

Statistically significant differences regarding the 'veya' conjunction in Turkish may suggest that the Turkish corresponding pattern may have acted as a contributing factor to performance of the Turkish group regarding their read speech in English.

The 'so' conjunction in L1

Equivalent of the 'so' conjunction is 'bu yüzden' in Turkish, 'kwa hiwyo' in Swahili, 'dan haka' in Hausa and 'lazalik' in Arabic. Findings for the mean duration of pauses are presented in Table 10:

Table 10: Paired samples t-test results for the 'so' conjunction in L1 read speech

Pauses	f	\bar{x}	SD	Df	t	p
Turkish						
PP	30	.325	.203	58	7.259	.000
PF	30	.051	.032			
Swahili						
PP	30	.189	.195	58	1.860	.068
PF	30	.109	.129			
Hausa						
PP	30	.180	.193	58	.594	.555
PF	30	.150	.206			
Arabic						
PP	30	.137	.093	58	3.757	.000
PF	30	.055	.074			

Note: Significance level is $p \leq 0.05$

Findings indicate that regardless of their mother tongues, all speakers paused longer preceding the ‘so’ conjunction. The difference of this duration was found to be statistically significant in Turkish and Arabic. A statistically insignificant difference was observed between mean duration in preceding and following pauses regarding Swahili and Hausa speakers.

The ‘so’ conjunction is not a commonly utilised conjunction in many languages, especially in Swahili and Hausa. Usually, a substitution is preferred in a cause-effect relationship. For instance, in a sentence like “It was raining, so I didn’t go out”, an affirmative sentence is followed by a negative one. It is not uncommon for a Swahili speaker in their *spontaneous speech* to employ the subjunctive instead. Therefore, Swahili speakers may have applied their L1 *spontaneous speech* dynamics in their L1 *read speech* productions.

Similar to other conjunctions, we could not observe any statistically significant difference for the ‘so’ conjunction in the Hausa group although they were observed to pause longer in favour of the preceding position. This can be explained in terms of *juxtaposition* in this language (Smirnova, 1982; Jaggar, 2001).

DISCUSSION

Our analyses showed that regardless of their mother tongues, all speakers paused longer in the preceding position of the ‘and’, ‘but’, ‘or’, and ‘so’ conjunctions in *read speech*. Except for the use of ‘or’ conjunction among Hausa and Arabic groups, the difference in positions of these pauses was found to be statistically significant regarding all conjunctions.

For the ‘and’ conjunction, Turkish speakers paused much longer than other speakers, and this may have resulted from transfer from their L1 reading strategies. As for the ‘but’ conjunction, we could observe that the mean duration of pauses was quite close to those of Turkish and Hausa, in which the participants used the same conjunction in their L1. In addition, it was notable that mean duration of pauses was also quite similar to that in Swahili and Arabic, in which the speakers of these languages used the same conjunction. These similar patterns may suggest a potential L1 transfer into *read speech* in English.

Our analysis about the ‘or’ conjunction indicated that when Turkish and Swahili groups used this conjunction as a sentence connector, the difference regarding pause preceding this conjunction was statistically significant. Although Hausa and Arabic groups also paused longer in favor of the preceding position, we could not observe any statistically significant difference, which may have resulted from the prevailing use of direct *juxtaposition* in these languages.

The ‘so’ conjunction is not a commonly utilized conjunction in many languages, especially in Swahili and Hausa. Usually, a substitution is preferred in a cause-effect relationship. For instance, in a sentence like “It was raining, so I didn’t go out”, an affirmative sentence is followed by a negative one. It is not uncommon for a Swahili speaker in their speech to employ the subjunctive instead. Therefore, Swahili speakers may have applied their L1 speech dynamics in their L1 *read speech* productions.

There are not many studies comparing read speech fluency from L1 and L2 perspective. However, our findings are correlated with current studies in this field. Research on pauses reveals that native speakers of English paused longer in the preceding position than the following in *read speech*. A study by Bada (2006) analyzed ‘that’ clauses in native speakers of English in *read speech*, and results showed that native speakers of English paused significantly longer in preceding position. Findings of another research by Bada & Genç (2008) were also in line with the previous one. The researchers analyzed the ‘to’ particle in *read speech* of English native speakers, and results illustrated that the duration of pauses were significantly longer in preceding position. Further studies by Genç, Özkan & Bada (2010), and Kılıç (2013) also presented a parallel pattern for native speakers of English, where the researchers

investigated the ‘to’ particle in *to-participles* in *read speech*, and subordinating conjunctions in the latter.

Differences resulting from participants’ social background could be an important factor on their speech production and this is supported by Kendall (2009). In his study, the researcher proposed ethnicity and gender as an important social variable for speech rate and pauses. Our findings also align with the study by Lundholm Fors (2015) in which the researcher stated the context of pauses plays a significant role in duration of pauses.

CONCLUSION

Pauses in *read speech* are syntactic by nature, that is, they bear grammatical characteristics. Unlike cognitive pauses in which speakers need to consider as to what to say in *spontaneous speech*, they do not normally need time for planning for upcoming text in *read speech* since it is already there. The speakers in this research have applied this characteristic in their *read speech*, and that might have resulted from their L1 habits, which seems to align with a native-speaker-type strategy.

Next, SLA has been steering towards a multilingual turn, and scholars have been trying to draw frames and pedagogies for this unprecedented flow (DFG, 2016; Galante, 2018; Ortega, 2019) For that reason, we believe that our findings from L1 read speech and their comparison with L2’s might provide an insight into the nature participants’ linguistic trajectories. This will help sort out hesitation problems that EFL learners come across in receptive and productive skills, reading and speaking in particular.

When carrying out a scientific study, researchers need to define their scope well, and naturally, are expected to remain within the confines of their scope. This is what we endeavored to craft with this study. Since *read speech* and *spontaneous speech* have different dynamics, it is crucial rather than extraneous to carry out this research at a further level by investigating *spontaneous speech* performances. Also, the number of studies dealing with productions of native speakers regarding this area is rather limited. It will also be an important contribution to investigate *read speech* performance according to gender. More research in this direction would significantly contribute to fluency research.

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