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Filled Pauses as a Differentiating Marker between Spontaneous and Read-aloud Speech as Produced by Iraqi EFL Learners

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الباحثة الأستاذ الدكتور

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Abstract:

The sixties and seventies of the twentieth century witnessed a growing interest in the field of pausology. The interest presented a number of studies aiming at measuring the acoustic features of speech, specially pauses. Previous studies have investigated the repeated word-sequences, the length of words or types of pauses in languages other than English. The present study investigates whether filled pauses are used by native and non-native speakers of English in two different styles of speech, namely; read-aloud and spontaneous. Two tests are conducted, to investigate the validity of the immediately above mentioned statement, on a sample of American, British subjects on the one hand, and Iraqi EFL students from the Department of English Language, College of Education for Humanties and College of Arts, University of Basra on the other. An ANOVA analysis was applied to show the differences between the two groups of participants in the two styles of speech.

الخلاصة:

شهدت الستينات والسبعينات من القرن العشرين اهتماماً متزايداً بحقل علم التوقف كان نتيجته عدد من الدراسات الهادفة لقياس الخصائص الفيزيائية للصوت وخصوصاً الوقفات. حيث حققت الدراسات السابقة في تسلسل تكرار الكلمة، طول الكلمة، أنواع الوقفات في اللغة الإنجليزية وغيرها من اللغات.

تحقق الدراسة الحالية في مدى تأثير الوقفات الممتلئة المستخدمة من قبل الأمريكيين والبريطانيين والعراقيين من متحدثي اللغة الإنجليزية في نمطي الكلام، أي الكلام المقروء بصوت عال والكلام العفوي.

وعليه طبق اختباران للتحقق من مدى صحة ما ذكرا في أعلاه على عينة من الأمريكيين والبريطانيين من جهة وعلى طلبة جامعة البصرة من متحدثي اللغة الإنكليزية مرحلة ثالثة من قسمي اللغة الإنجليزية كلية التربية للعلوم الإنسانية وكلية الآداب من جهة أخرى. وقد استخدم برنامج الـ AVONA لتحليل النتائج وكشف الاختلافات في نمطي الكلام ما بين المجموعتين المشتركتين.

وقد بينت النتائج وجود اختلاف في استخدام الوقفة الممتلئة بين أفراد العينة. حيث كشفت عن عدم استخدام الوقفة الممتلئة من قبل الإناث الأمريكيات في نمطي الكلام المقروء بصوت عال. أما بالنسبة لعينة الطلبة العراقيين فالإناث يستخدمنها في نمط الكلام المقروء بصوت عال أكثر من نمط الكلام العفوي والذكور لا يستخدمون الوقفة الممتلئة في نمط الكلام المقروء بصوت عال ويفرطون في استخدامها في نمط الكلام العفوي.

1. Introduction

Psycholinguistics and phonetics are two important branches of linguistics; together they present what is called "pausology". Pausology is the science that studies temporal dimensions of speech. Pauses are included among the three temporal variables of speech together with speech rate (measured by the total number of syllables/total time) and articulation rate (measured by the total number of syllables/total articulation time, i.e. total time minus pause time).

The concept of "pause" represents one of the phonic features that together with melody, affect the semantic aspect of communication. A pause is a commonly occurring feature of natural or written speech in which gaps or hesitations appear during the production of an utterance (Schum, 1996: 212).

When it comes to written materials, white spaces and punctuation marks separate words, like: commas, full stops, capitalization ...etc., which enable the reader to identify pauses between words, phrases and sentences. Spontaneous speech, on the other hand, involves the unraveling of thoughts and concepts into a number of components, each of which can form an utterance. For each planned utterance the speaker has to derive an appropriate syntactic structure and retrieve the right words to convey the intended message. The developed utterance can, then, be transformed into a connected speech with a correct melodic and temporal structure.

The hypothesis being investigated here, is that filled pauses has an impact on the participants' performance in the two styles of speech, read-aloud and spontaneous, since not all speakers of English use filled pauses.

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The study starts by introducing basic aspects concerning the concept of a pause and its types, and basic remarks on the two styles of speech, read-aloud and spontaneous.

2. 0n Read-Aloud Speech

A read-aloud speech may be obtained and triggered by giving instructions to a talker to produce a more careful speech. Gilbert (2005: xi) states that a read-aloud speaking test should include instructions to the speakers to produce their speech as clearly and as precisely as possible, making use of their pronunciation skills.

Reading-aloud is just one in a large class of speaking styles adopted by talkers as the situation demands. This large class of speaking styles may include: reading lists of close pairs, reading lists of words, reading a passage of prose, and getting involved in a formal interview (Labov, 1966 as cited in Wardhaugh, 2006:154). Labov investigated other types of spontaneous speech: speech outside the formal interview, a conversation with a third party, responses to questions, telling childhood rhymes, and recounting an event which might have proved ***i*** fatal. It was Lobov who first used the terms "careful" and "casual" for read-aloud HI and spontaneous speech respectively, as he was behind some sociolinguistic perspectives rather than doing acoustic-phonetic analyses (Wardhauh, HI 2006:154).

We often do not produce the same word the same way in different situations. Reading a list of words out loudly differs from saying them in a spontaneous way. Even within spontaneous speech there are many differences ft in the production of the same word by the same speaker. Speech varies to a f great extent throughout the physical and emotional state of the speaker, and *h* this has an influence on the listener.

Uchanski (1996: 494) states that there are two main benefits of read-aloud speech examined and investigated out of acoustic-phonetic experiments. These two benefits are: perceptual and physiological. The perceptual benefit of read- aloud speech is related to listeners, environments, language experience, P modalities, and training of the talkers. The physiological aspect of read-aloud speech centers on the articulatory and physiological improvement in the production of certain syllables or words in different speaking backgrounds.

Many studies such as Schum (1996:212); Bradlow and Bent (2002:272); Ferguson (2004:2365); and Smiljanic and Bradlow (2007:661), report that read-C aloud speech can be easily understood by a hearing impaired person than spontaneous speech, and that read-aloud speech is more intelligible than spontaneous speech. Bradlow and Bent (2002: 272) point out that the p perceptual benefit of read-aloud speech depends also on a good experience with the sound structure of the target language. Bradlow, et al. (2003:80) note that read-aloud speech is more

intelligible for adults than for school-age children. The more the experience of language is, the larger the intelligibility ^ advantage will be.

I As for age, experience and training of the talkers, Schum (1996: 212) states ^that adults produce read-aloud speech more clearly than younger talkers, and I that talkers who are trained by certain instructions produce read-aloud speech * that is significantly more intelligible than training experience. Schum states that I if talkers ask whether to speak louder, slower, or for any other kind of ***i*** instruction, they are told to do whatever they can to read-aloud and be better | understood (Schum, 1996: 219).

3. On Spontaneous Speech

Nolasco and Arthur (1987:5) state that 'spontaneous' refers to any spoken Rencounter or interaction where people are given the right to talk or listen I without following a fixed schedule. The most fundamental unit of spontaneous speech is an exchange of information between two or more speakers at particular speaking rates. Spontaneous speech, by definition, is not prepared well in advance. The speaker is expected to formulate his/her thoughts on the fly. The lack of preparation and/or inadequate knowledge of the language leads to several disfluencies in the output speech signal. Structurally, the disfluent] speech can be split into three components, the reparandum, the edit phrase and the alteration. The reparandum is the part of the speech that the speaker intends to replace (Levelt: 1983: 205). The edit phrase is the region between the reparandum and the beginning of the replacement of the reparandum. The edit 1 phrase typically consists of unfilled or filled pauses (e.g. 'ahh', 'umm') or discourse markers (e.g., 'like[7], 'you know'). The alteration marks the resumption *X* of fluency. Removal of the reparandum and the edit phrase restores the fluency in the spoken utterance..

Akmajian, et al. (2001: 575) define a conversation, which may represent spontaneous speech, as "any set of connected utterances by more than one speaker that has the structure characterized by greetings, turn takings, and closings." Brown (2005: 159) states that conversations are the most common | forms of language use. These include interaction of more than one participant, *I* keeping the dialogue going, establishing social relationships and promoting an exchange of information in giving more than one talker the opportunity to J contribute to the direction of the event. The aim of this study does not include spontaneous speech in the form of conversation, but rather includes retelling J what have already been read.

Spontaneous speech refers to that type of speech produced under casual or j typical environments especially when no particular speaking effort or instruction is made. Spontaneous speech is best described in

relation to read-aloud speech. U 11n other words, spontaneous speech is usually described relative to the same j| I samples of read-aloud speech in order to distinguish the main differences and U 5j the most important characteristics of each speaking style (Remez, el at. ^ I 1986:526). W

I Previous works, as mentioned before, have established that naturally > J produced read-aloud speech is easier to recognize and is more intelligible than 0 ^spontaneous speech. Spontaneous speech is often extensively reduced both in S J terms of duration and spectral clarity. Intelligibility of speech, as stated by |j

► Gagne, et al. (1994:136), Ferguson (2004:2365), and others, is affected by certain \ 1 acoustic-phonetic factors such as duration, fundamental frequency, pitch range, (j

► pauses and other acoustic measures. In the present work pauses are examined < I and investigated in read-aloud and spontaneous Speech relative to all acoustic- jj

> phonetic parameters and as produced by native and non-native speakers. <j j

4. Intelligibility

Gray and Wise (1959:55) state that writing can be legible or readable when / | the letters or words are easily distinguishable. For speech to be intelligible, the R

> sounds and words must be produced clear enough. In other words, every sound y | in every context must be given its proper value. Ball et al. (2008:568) point out *H I* that studies of speech intelligibility have for a long time been chiefly associated > | with studies of speech communication whether by normal speakers or speakers *u 'I* with speech disorders. Speech intelligibility studies were in the first place > | initiated to measure the quality of telephone transmission systems. These *n* J systems consisted of items such as syllables, words or sentences and in which \ | intelligibility was determined and computed by a correct identification and p ^ understanding of these items. Moreover, speech intelligibility is significant and jJJ | valuable to other fields of study and investigation, such as communication in *n* i'general, the analysis of recordings, properties of hearing impairments and *K* ji defects, studies of read-aloud and spontaneous speech and many other fields $ I and areas of investigation (Benesty&Sondhi, 2008:70).

It is worth noting that there is no general agreement on a single definition of ^ I the term 'intelligibility[1]. In other words, there is no plain and direct answer to the question 'What is speech intelligibility?[1] Ball, et al. (2008:569) state that speech ***i*** I intelligibility count on speaker and listener characteristics, speaking and listening 0 *I* conditions, and a multitude of other factors. Goldberg and Riek (2000:136) note \ J that

speech intelligibility refers to the listener's proper identification of they ^ message content that is spoken. Jenkins (2000:70) mentions other definitions of % | speech intelligibility. Some use 'intelligibility[1] as a "blanket[11] term that deals with \\

factors related to the speaker and the listener who both play their parts in the act of speech and its interpretation. Others, on the other hand, relate intelligibility to 'comprehensibility', 'interpretability[1], 'recognition[1], or 'identification' and to 'understanding[1], i.e., absorbing the expressive content of the message. While the remainders associate 'intelligibility' with the effect of recognizing the linguistic forms.

Hansler and Schmidt (2008: 289-290) contend that intelligibility is an intrinsic prerequisite of speech because it basically refers to a correct understanding of the linguistic components of speech, such as phonemes, syllables, words or full sentences. In Rashid's opinion (2009:57), intelligibility means "conveying the message in a communicative way via clear pronunciation." Rashid (2009:57-58) mentions other meanings of the term 'intelligibility' from the point of view of seventeen teachers of English at the university level:

1. What the listener comprehends of the message being conveyed
2. Intelligibility is influenced by the speaker's linguistic competence and her/his language experience
3. Producing a clear and acceptable speech
4. Sufficient awareness of the communicative competence
5. An accurate expression of oneself from the phonological level
6. The more information are given, the more speech is intelligible and recognizable
7. A good knowledge of the segmental and suprasegmental features of speech
8. Understanding somebody's speech and writing very easily
9. Understanding the intended meaning of the message

There are different factors which have a strong impact on speech intelligibility, but intelligibility is usually measured when the clarity of consonants and vowels is the only prominent and contributing variable (Clark etal., 2007:305).

Many studies examined the acoustic differences across speaking styles (read-aloud and spontaneous). Some of these studies indicate that the features that are essential for the speaking style and for intelligibility may be different. Other studies affirm that intelligibility increases with read-aloud speech and decreases by the effect of many factors. There are, however, various methods to measure and estimate speech intelligibility in general. Different techniques and procedures are applied in different conditions and modalities and for different purposes.

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Gagne, et al. (1994: 153) point out that intelligibility varies according to the speaking style and the sensory modality (auditory, visual, or audiovisual). Data

from their study which employed ten talkers, suggest that talkers vary in the

extent to which they improve their intelligibility by speaking clearly. In other words, in each sensory modality, speech intelligibility scores are higher in read-aloud than in spontaneous speech.

Designers, engineers, and acoustic phonetics researchers have the greatest effect on speech intelligibility as well as on other acoustic measures and parameters by their choice of equipment, the techniques and instruments they apply, the choice of good environmental recording conditions, and many other choices. Beranek (1996:415) and Benesty and Sondhi (2008:72) state that all of these factors determine that speech is recommended to be recorded only after careful planning and environments where noise and other intelligibility reducing factors should be minimized.

5. Pauses

The term "pause" is used in linguistics, phonetics and psycholinguistics. When listening carefully to someone telling a story we can feel the fact that there are many irregularities with respect to the fluency of the speech: the speaker is alternately speeding up and slowing down his/her speech by using pauses and using variations in speech tempo. For the large part, this will be the result of planning the discourse: the time necessary to adaptly formulate what has to be told. Other than by adaptations for speaking styles and situational circumstances (number of listeners, reverberation...etcjthe speaker may create the possibility to plan the discourse and to recognize this discourse planning, if necessary, by means of a specific pausing strategy.) Donzel and Beinum, 1996: 8).

Kasl and Mahl (1965) as cited in Goldman-Eisler (1972: 2) believe that a pause may refer to a rest, a break, hesitation or temporary stop. In speaking or reading aloud a brief rest or suspension of voice which sounds like a temporary inaction or waiting appears to indicate limits and relations of sentences and their parts or sometimes to clarify and reflect meaning. Others like Richards and Schmidt (1965) as cited in Goldman-Eisler (1967: 122) regard pausing as a commonly occurring feature of natural speech in which gaps or hesitations appear during the production of utterances. They, Richards and Schmidt, remark that people who speak slowly often use more pauses than people who speak quickly since when people speak up then 50% of their speaking time is made up of pauses.

In writing or printing, punctuation marks are used to indicate the place and nature of pauses like, the comma and the full stop in the following sentence: *Well, he used to be my tutor*. (Stenstrom, 1994: 76)

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Linguistic structure has been shown to play an important role in pausing strategies which signal information flow of the utterance, thereby helping the listener to interpret the message uttered by the speaker (Gee and Grosjean,

1983: 5). Swerts and Geluykens (1994: 34) suggest that speakers in monologues use pauses of various lengths to signal information flow in terms of topic structure. Shriberg (2000: 67) report that new topics are often realized by some combination of silent pauses, low boundary tones and/or pitch range resets in English.

Moreover, Hirschberg (2001: 34) argues that phrases introducing a new topic can be characterized by an initially wider pitch range preceded by a longer pause, and on average they are louder and slower than other phrases. Van Donzel (1999: 5) studies prosodic features of discourse boundaries for Dutch on the basis of clause, sentence and paragraph divisions, as well as the prosodic features of information structure in terms of the New-Given taxonomy. She found that discourse boundaries in spontaneous speech are realized by silent pauses and high boundary tones. These studies show that there is a relationship between prosody and (at least) higher linguistic structure, such as discourse in terms of topic, theme, and New-Given taxonomies.

In the last decade several studies dealt with the role and features of pausing. One reason is that pauses indicate groups of words in speech, i.e, prosodic phrases which highlight the information structure of the utterance (Deese, 1980: 3; Swerts, 1994: 5; Bruce, 1995: 28; Hirschberg, 1995: 36 and Ostendorf, 1997: 3J. Speakers in monologue discourse, for instance, typically vary the length and position of pauses on the basis of the information structure: Pauses occur between all topical units, and directly after the topic-introducing phrase or clause (Swerts, 1994: 5).

6. Pauses as Functional Items in a Language System

Osgood (1954: 26) was the first to assume the existence of functional units for information transmission. On this premise, Goldman-Eisler (1958: 100) and Suci (1967: 26) state that pauses could be the boundaries of such functional units, by virtue of their non-casual distribution in speech. They, therefore, define minimal language units as items resisting progressive fracturing and demonstrate how speech segments between pauses fulfill this condition. They subsequently examine whether these psychological units were based on syntactic structure. After having carried out a series of experiments, Suci concluded that as there is no correspondence between these units and traditional syntactic structure, pauses must reflect a different sort of structural organization. Moreover, it had to be borne in mind that there are individual differences in the structuring of verbal material. Keseling (1992: 107) too, examines pauses in this perspective

and came to the conclusion that pauses are indeed functional elements, but they are not subject to a fixed system of rules. However; the pioneer research on pausology was conducted by Goldman-Eisler in the fifties and sixties of the last century since she established the conventions of pausology measurements through a detailed analysis of spectrographic printouts supplemented by perceptual checks.

7. Types of Pauses

Pauses are commonly referred to as speech errors. Carroll (1986: 253) and Bussmann (1996: 449) consider them as slips of the tongue and classified them to conscious or unconscious deviations from the apparently intended form of an utterance. They can be subdivided into spontaneous, an inadvertently produced types of speech errors, and intentional, an intentionally produced form like in producing word-plays.

The form of pauses is a common feature of spontaneous speech that can be according to Dalton and Hardcastle (1977: 34) one of three types. The first type is associated with the articulatory closure of stop consonants. These pauses range from 50 milliseconds to 250 msec. Such pauses are ubiquitous and are usually not considered in studies of hesitation phenomena. In more sophisticated speech studies, which make use of specialized instruments for speech analysis, such pauses are 'weeded' out by setting a minimum time restriction for consideration as a pause.

The second type of pause is associated with respiration and occurs when a speaker pauses in order to take breath. Such pauses are normally silent, though on occasion they are accompanied by "an audible voiceless hissing caused by the generation of turbulent air at various points of stricture in the vocal tract" (Dalton and Hardcastle, 1977: 34). Goldman-Eisler (1968 as cited in Dalton and Hardcastle, 1977: 34) in summarizing studies of breath pauses, found that their rate and duration are likely related to the overall speech performance. Such pauses, however, are of little concern in psycholinguistic research but fall mostly in the domain of speech pathology. For example, the frequency of breath pauses is hypothesized to be an indicator of such pathological conditions as Parkinson's disease (Dalton and Hardcastle, 1977: 35).

Filled pauses are vocalized in a variety of ways. A pause might be filled with any of the following phonetic combinations: /a/, /am/, /u/, /urn/, /er/, /erm/, /m/ as in the following extracts:

// my cousin's daughter came down and said er princess diana was killed in an Accident// // so it's HARD to say .//ERM . probably: the: blame lies with many different
people.//

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Filled pauses may also be lexicalized as in 'like' and 'you know'. *//. a:nd this bandstand also had like a kitchen area underNEATH // so it was a fairly HIGH bandstand//*

//_ when people are very OLD J/you KNOW//the cars that they LIKE//the cars that they RODE in// that they grew .// the cars that// the people they KNEW// everything starts to disapPEAR //

,

Similarly, they may be lexicalized with expressions like 'well[1], 'so', 'okay[1], and I 'let's see[1].

However, although such words and expressions may fill a pause, not all instances of these are filled pauses. Researchers distinguish lexicalized filled pauses (also called "verbal fillers", e.g. Stenstrom,1994) on the basis that they, like unlexicalized filled pauses, appear to be brief moments during which a speaker is making decisions about a future word or the organization of discourse (e.g. Leech and Svartvik, 1994:4). Generalizing this to all hesitation phenomena suggests that false starts, repairs, and lengthenings also constitute moments during which subsequent discourse is being planned. As such, only one of the phenomena i.e. pauses, and to be precise filled pauses, is examined in the present study.

With respect to temporal phenomena, a number of psycho-acousticians have documented the importance of these aspects of perception for our understanding of speech processing (Zwicker and Feldkeller, 1981; Botte, et al., 1989 as cited in Zellner, 1994: 44). Some pauses are more easily perceived than others, and generally, such pauses appear to support particular functions within the message, such as grammatical functions, semantic focus, hesitation, and so on. In languages where systematic pauses have been observed, two types can be distinguished "silent" and "filled" pauses:

7.1.a.1 Silent pauses correspond to the perception of a silent portion in the speech signal. Such pauses may be produced in conjunction with an inspiration, swallowing, any laryngo-phonatory reflex, or a silent expiration (Zellner, 1994: 44).

7. l.a.2 Filled pauses correspond to the perception of a voiced section in the speech signal. Most filled pauses in such languages as English and French are drawls, repetitions of utterances, words, syllables, sounds, and false starts (Grosjean and Deschamps, 1975; Bloodstein, 1981 as cited in Zellner: 1994; 44).Generally, with normal speakers (speakers with no speech impairment pathology), silent and filled pauses appear between words (Zellner, 1994: 44). On the other hand, Donzel and Beinum (1996: 87) deal with pauses and classify them into three types. They are given below:

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7.2.b.l Silent pauses. A pause is labeled as a silent pause if its duration is at least 150 msec. This minimal length is to insure that closure times of stop consonants are not included. In case the closure time occasionally exceeds 150 msec, then it is obviously not marked as a silent pause. Silent pauses may be classified into short and long pauses or more fine grained analyses may classify silent pauses to short, medium, and long pauses based on some standards, though these standards have not been consistent across studies.

7.2.b.2 Filled pauses: A hesitation sound feeh') is labeled as a filled pause. These elements in a discourse do not have any lexical meaning, but they can indicate that the speaker needs time to plan the continuation of his/her speech, that he/she wants to avoid a silence, or that he/she wants to 'hold the floor[1]. Silences preceding and/or following the hesitation sound are marked as 'silence to a filled pause even if they are shorter than 150 msec. According to Batline, Kiebling, Burger and North (1995) as cited in Bortfeld, et al. (2001: 34) pauses can be further divided into:

7.2.b.2.1 Hesitations: this type is due to planning, control of turn-taking, or speaker idiosyncrasies. Functional equivalents and hesitation lengthening that is not caused by accentutation or normal preboundary are filled pauses.

7.2.b.2.2 Cue Phrases: for repetitions or repairs of words and phrases or for restarts of syntactic constructions. Functional equivalents are words like no, that means, etc. often such disfluncies are not marked cue phrases but only with prosodic means.

The following are two important functions of filled pauses, they were also discussed in Takubo(1995) and Rose (1998) as cited in Goto, Itou and Hayamizu (1999: 228)

7.2.b.2.c.l Communicative function: In spoken dialogue, a speaker uses filled pauses to keep a conversational turn while taking enough thinking time to prepare a subsequent utterance. On the other hand, a listener hearing filled pauses usually waits for the speaker's subsequent utterance without interrupting the turn.

7.2.b.2.c.2 Affective and Cognitive functions: For achieving a smooth dialogue by sharing mental states among interlocutors, a speaker unconsciously uses filled pauses to express mental states such as diffidence, anxiety, hesitation, and humility and also to express different thinking states, such as retrieving information from memory and seeking an expression appropriate for a listener. However, a listener interprets filled pauses as indicators for inferring speaker's mental and thinking states. In addition, filled pauses sometimes enable a listener

to predict the speaker's subsequent utterance to some extent

7.2.b.3 Lengthening. A speaker can use lengthening as a planning tool by sustaining a particular vowel or consonant within certain words. As a first step the words containing lengthening are determined by ear by the first researcher of the experiment, and in a later stage are checked by the second researcher. Two kinds of lengthening are observed: a schwa added after the last consonant of the word, and the lengthening of a word-internal vowel or a consonant. (Donzel and Beinum,1996: 87). Lengthenings are also called prolongations, that is, when the speaker extends the articulation of one or more segments of a word.

Although a few speech recognition systems have processed filled pauses within subword-based connected word recognition or word-spotting frameworks, they did not detect the pauses individually and consequently could not consider their roles. Filled pauses and word lengthening are phenomena that play valuable roles in oral communication, such as helping a speaker hold a conversational turn and express mental and thinking states. (Goto, Itou and Hayamizu, 1999:227).

Several previous methods have dealt with filled pauses in speech recognition. With Stolcke and Shriberg (1996 as cited in Ogata, Goto and Itou: 2009; 4305) a language model that considers speech disfluency is presented. While with Schamm (2003 as cited in Ogata, Goto and Itou: 2009; 4305) filled pauses are incorporated into pronunciation variations for lexical modeling. Most of these approaches assume that tilled pauses can be dealt with as words in a system of vocabulary and that a speech recognizer can reliably generate hypotheses containing such pauses as words. However, Stouten et al.(2006 as cited in Ogata, Goto and Itou, 2009: 4305) report that this assumption is often wrong because it is difficult to predict the occurrences of filled pauses by using acoustic, language, and pronunciation models (lexicons). Therefore, Stouten et al.(2006 as cited in Ogata, Goto and Itou, 2009: 4305) propose a method that uses an independent filled-pause detector to reduce speech recognition errors caused by disfluencies. This method first segments the input speech into phoneme-like segments, and then judges whether each segment is a filled pause or not (i.e., detects a filled pause) by using a neural network before speech recognition. All the frames of the detected filled-pause segments are then ignored when decoding, resulting in the avoidance of recognition errors caused by filled pauses. Although this method is effective for fillers such as "uh" and "uhm", it dose not take into account a filled pause at the end of a word or within a word, which we deal with by using a bottom-up acoustical analysis without segmenting the input speech. Moreover, this method does not deal with silent pauses at all (Ogata, Goto and Itou, 2009: 4305).

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The question now is why do people use pauses and can pauses be avoided? According to O'Hair, Stewart and Rubenstein (1991: 3) people use pauses to enhance meaning by providing a type of punctuation, emphasizing a point, drawing attention to a key thought and allowing listeners a moment to contemplate what is being said so they make a speech far more effective than it 'might otherwise be. Besides, filled pauses serve the additional purpose of holding the floor i.e. hindering interruption by listeners, whereas silent pauses invite interruption. On the other hand, vocal fillers like; Uh, you know, Hmm, I mean, It's like etc, can be avoided, thus English most common form is 'uh' which greatly resembles the centralized vowel schwa while 'urn' and 'er' occur much less (O'shaughnessy, 2011: 3).

8. Pausing Strategies in Narrative

Several studies are conducted to investigate the system of rules that underlie speakers' pausing strategies and their psychological bases. Research in this field has shown that pauses may play several communicative functions, such as building up tension or generating the listener's expectations about the rest of the story, assisting the listener in his task of understanding the speaker, signaling anxiety, emphasis, syntactic complexity, degree of spontaneity, gender, and educational and socio-economical (Bernestein, 1962 as cited in Goldman-Eisler, 1968: 98 and Abram & Bever, 1969: 280).

Studies on empty pauses distribution in language production show a relationship between pausing and discourse structure. Empty pauses are more likely to coincide with boundaries, realized as a silent interval of varying length, at clause and paragraph level (Brotherton, 1979: 179; Gee & Grosjen, 1984: 59; Rosenfied, 1987: 3). This is particularly true of narrative structures where it has been shown that pausing marks the boundaries of narrative units (Chafe, 1980: 3; Rosenfield, 1987: 4; Chafe, 1987: 23; Oliveria, 2002:540). Several cognitive psychologists suggest that pausing strategies reflect the complexity of neural information processing. Pauses will surface in the speech stream as the end product of a "planning" process that cannot be carried out during speech articulation and the amount and length of pausing reflects the cognitive effort related to lexical choices and semantic difficulties for generating new information (Goldman- Eisler, 1968: 96; Butterworth, 1980:155 and Chafe, 1987: 20).

According to Labov (1997 as cited in Oliveira, 2002: 541), the structure of a well-formed narrative presents six sections: (1) an "abstract", which summarizes the story, (2) an "orientation", which identifies time, place, characters, (3) a "complicating action", which recounts events, in chronological sequence, (4)

"evaluation", which provides a point to the story, (5) a "resolution", which concludes the events in the story, and (6) a "coda", which terminates the story. These sections are listed in their usual order of occurrence (except for the "evaluation", which may be found in various forms throughout the narrative), but Labov (1997 as cited in Oliveira, 2002: 541) indicates that most narratives do not, in fact, contain all of these elements. According to him, only the section "complicating action" is necessary for a minimal narrative, since a minimal definition of narrative involves simply a pair of temporally ordered events. In a narrative, the sections that would be closely related to the cognitive process of interpreting are the "evaluation" and the "coda," while the other sections ("abstract," "orientation," "complicating action" and resolution") involve the less complex process of "describing." As noted above, "evaluations" are ways in which a narrator provides the point for telling a given story. The main function of a "coda" is to signal the end of a narrative, by returning the conversation to the point where the narrative was brought about. However, a "coda" does not only function as a bridge to different speech modes, but, most of the time, it also sums up the point of the narrative, which often contains some sort of interpretation of the narrative as a whole. Since both sections are characterized by the more complex process of interpreting, one would expect the presence of a larger number of pauses of longer duration in such sections (Oliveira, 2007:455).

9. Method & Material 9.1 The Participants

9.1.The participants

in the tests of the present study are of two groups, natives and non-natives, and within them there are another two sub-divisions. Starting with the first group of participants who are 13 adult native speakers of English (6 females and 7 males later decreased to 4 females and 6 males) they are subdivided into five (3 males and 2 females)BBC English speakers and five (3 males and 2 females) General American English speakers. They are chosen from different places, the British speakers are chosen from Halliborton Company and Hj Olive Group Company, they are born and raised in London and speak the BBC accent. As for the Americans they are chosen also from Halliborton Company and the Language Centre Institution at Basra; they are born and raised in the United States and speak the General American accent.

The second group consists of only 49 students from third stage at the Departments of English at Basrah University, 23 students were randomly taken from the College of Arts and 26 students were randomly chosen from the College of Education for Humanities, in the academic year 2011-2012.

9.2 The Setting

Each group was tested alone, the first group took the test on February 25, 2012 and on March 22, 2012. The test lasted for five hours while the second group took the test before them on November 21, 2011 and December 12, 2011. The test lasted for approximately three hours. The same subjects who participated in the first test did the second test. Ail subjects who participated in the experiment were free of any known voice and speech anomalies or any neurologic or muscular conditions that would be expected to affect their ability to produce speech. Still about twenty participants were excluded from the list of subjects not because they showed any evidence of speech, language or voice disorder, but because they were not good enough to help accomplish the objectives of the experiment and the purposes of the recording sessions.

9.3 Description of the Tests

As far as the tests material is concerned, it was selected from Naserddin Hodja, stories to Read and Retell, illustrations by Robert Maclean (2004), compiled by Raymond C. Clark. The tests consist of five stories; they were alphabetically ordered depending on the first letter with which the title of each story begins. Their alphabetical order happened to help with their length, i.e., the first three stories are short and easy to retell while the last two were long and contain more events than the first three. The five stories are designed to be read and retold and the subjects are instructed by the first researcher before recording about the procedure which was as follows:

The subject would be given an A4 paper on which the first story was printed in a clear middle computer writing and she\he would be given a signal from the researcher that she\he may begin reading, of course, this would be the first time for the subject to see the text and she\he would be asked to read it out loudly, clearly and slowly and she\he may take her\him time in reading so there is no pressure on the subject. Then, there would be five minutes of rest in which both the researcher and the subject are not allowed to talk to each other, then the subject is asked to retell what she/he has just read and to be precise as much as possible. All this was explained to the subjects before doing the recording and the same thing was applied to the other four stories. When she\he finishes, the subject is given a chance to give her\his opinion about the stories .i.e. which one she\he liked more and why. Below are some general features of the five stories:

Story 1

A Slap on the Back

One day Hodja was walking quietly along the street when a troublesome villager came up behind him and slapped him on the back. Then, he excused

himself saying, "I'm so sorry, Hodja, I thought you were someone else - a friend of mine," and he laughed.
Angered, Hodja grabbed the man and took him to the court. At the court he asked the judge to fine the man for his offensive behavior.
"But, Hodja," said the judge, "this *is* really quite *minor*, why don't you forget it?"
However Hodja insisted, and so the judge fined the man two small coins. The man agreed right away to pay the fine, but he told Hodja to wait a minute while he went home to get the money.
Hodja waited and waited, but the man didn't come back.
Finally, Hodja walked up to the judge and slapped him on the back saying, "There, now when he comes he can pay you the coins."
This story comes second in length after story (4) with 164 words. The title contains 5 words. It introduces the main character which is the same in all five stories, namely: Hodja. It contains 30 punctuation marks (8 full stops, 16 comma, 4 quotations, 1 dash and 1 question mark) and 18 lines in four paragraphs. The expected pauses are 26 pauses.

Story 2

Everybody's Right

Hodja was once a judge. One day a man came to his house to complain about his neighbor. Hodja listened carefuiiy and then said to him, "My good man, you are right." The man went away happy.
In a little while the first man's neighbor came to see Hodja. He complained about the first man. Hodja listened carefully to him, too, and then said "My good man, you are right."
Hodja's wife had been listening to all this, and when the second man left, she turned to Hodja and said, "Hodja, you told men they were right. That's impossible. They both can't be right."
Hodja listened carefully to his wife and then said to her, "My dear, you are right"
This story is medium in length with 122 words, the title comprises 2 words. It contains 25 punctuation marks (11 full stops, 10 commas and 4 quotations) and 14 lines in four paragraphs. The expected pauses are 21pause.

Story 3

God Knows What He's Doing

It was a hot day and Hodja was tired from walking. So he sat down in the shade under a large walnut tree which was next to a garden full of watermelons. As he sat there, he began thinking to himself.
"It is strange/[1] he thought, "that God would have these large watermelons grow on such small plants, whereas the little walnut grows on such a large tree."

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Just then a walnut fell from the tree and hit Hodja on the head. "Ah", thought Hodja. "God knows what he's doing."

This story is very short in length with 95 words, the title embodies 5 words. It contains 16 punctuation marks (7 full stops, 5 commas, 4 quotations) and^LO lines in three paragraphs. The expected pauses are 13 pauses. Story 4 Obey Your Mother

Hodja went to the bazaar to buy a donkey. He finally chose one and paid the two men who sold it to him. He didn't realize that the two men were clever thieves.

As Hodja was leading the donkey home, the two men came up behind him. They slipped the rope off the donkey's neck. One man put the rope on his neck and followed behind Hodja. The other quietly led the donkey back to the bazaar to sell it again.

After a while, Hodja turned around and saw the man. "What are you doing here?" he exclaimed.

The thief said, "I disobeyed my mother, and as a punishment I was turned into a donkey. But now, praise God, I have been bought by an honest man and the spell is broken."

"How wonderful!" said Hodja. "Now go back home and never disobey your mother again."

The next day Hodja went back to the bazaar, and there was the first donkey seller standing beside the donkey Hodja had bought the day before. Amazed, Hodja walked up to the donkey and said angrily, "You fooll I thought I told you never to disobey your mother again."

This story is the longest one among the five stories with 198 words. The title is composed of 3 words. It contains 32 punctuation marks (15 full stops, 9 commas, 5 quotations, 1 question mark, and 2 exclamation marks) and 22 lines in seven paragraphs. The expected pauses are 27 pauses.

Story 5

The Thinking Turkey

Hodja was in the market one day when he noticed a man with a cage in his hand. There was a parrot in the cage, and the man was selling his parrot, shouting out to the market goers "100 gold ducas!". As Hodja watched, someone bought the parrot.

<**

Hodja suddenly saw a chance to make some money, so he rashed home and got a turkey from his back-yard. He returned to the market and began shouting "200 gold ducas for this beautiful turkey". But nobody showed any interest.

Finally a friend came up to Hodja and said to him" Hodja, are you crazy? You can't sell a turkey for that price!"

Hodja said, "why not? My turkey is beautiful as a parrot that was sold for 100 ducas this morning, and my turkey is bigger"
"But Hodja," the friend said, "that parrot is valuable because it talks like a man."
"Is that so?" said Hodja. "Well, my turkey thinks like a man". This story comes third in length withl62 word. The title embraces 3 words. It contains 32 punctuation marks (10 full stops, 10 commas, 8 quotations, 3 question marks, 1 dash, and 2 exclamation marks) and 20 lines in six paragraphs. This is the only story with the mentioning of a number in three different places. The expected pauses are 29 pauses.

9.4 Procedures

In order to have a valid experiment, two tests are conducted to investigate the participants' ability in pausing while speaking:

1. The first test consists of five stories each one is to be read-aloud. Each story lasts for about 2 minutes and as a whole the stories last for 10 minutes.
2. The second test is to be taken after the first test which requires from the participants to retell what they have just read. Time depends on the participant's performance her\himself.

It is important to know, that not all stories are given at one time; the procedure is to give the first story then the participant takes a short break after that she\he speaks spontaneously .i.e. retells what she\he has just read, then another break is to be taken and after it the second story is given and so on until the stories are finished.
The first test examines the participants' ability to pause while reading-aloud and for the first time. Besides, it gives the participants certain topics, events and ideas to be used in the second test. The second test examines the participants' ability to speak spontaneously within certain limits established by the first test. *)n* both tests, differences in pausing will appear in both styles of speech.

9.5 The Recording Technique

All the individual recordings in the two speaking styles were made by using a high quality MP3 Stereo Recorder (Sony MP3 IC Recorder). The Sony IC Recorder has a Hi-speed USB direct PC link. It also has a large storage memory, i.e., 535
hours maximum recording time. The Sony Recorder cuts noise for speech playback and is compatible with all Windows and Macintosh operating systems. The device is also accompanied by other enhancements which facilitate the recording process. Most of the single recordings were made in the language laboratory of the Department of English, at the College of Education for Humanities/ and the sound laboratory of the Department of Translation, the College of Arts. Some of the recordings were made in private and quiet rooms as it was difficult to use the labs at that time.

Each subject was seated approximately 10 inches from the recording device. The output was saved in the recorder and then was fed to and saved in a laptop computer (Dell Inspiron. 1525 pp29l). The time consumed to complete all the recordings needed was nearly two months.

10. Analysis and Discussion of the Results

Filled pauses are used in this study to be a feature of comparison between native and non-native speakers of English when using the two styles of speech, read-aloud and spontaneous speech. In read-aloud speech the Iraqi females had the higher average of using filled pauses which was (29.7) and the lower average of using filled pauses was made by the American and British males which was (1). In spontaneous speech Iraqi males had the higher average of using filled pauses which was (15.3) while the lower average of using filled pauses was (1) made by the native females. Unlike in read-aloud speech, all the subjects whether native or non-native used filled pauses in spontaneous speech since native males average of using filled pauses was (3.5) and non-native females average of using filled pauses was (4.6). So, the subjects used filled pauses in spontaneous speech more than in read-aloud speech.

The study presents two comparisons, the first is between native and non-native speakers of English and the second is between American and British speakers of English. Their results showed that American females didn't use filled pauses in read-aloud and spontaneous speech while British females used filled pauses in read-aloud speech and their average was (2.5) and in spontaneous speech their average was (2). The American and British males were similar in using filled pauses in read-aloud speech their average was (0.6), while in spontaneous speech the British males were of more use of filled pauses; their average was (3.3) than the American males whose average of using filled pauses was (1.3). The above results are exhibited in the tables and figures: Table-Group (1): the Results of the Native Subjects in Both Styles of speech

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(a)

Style of speech	No ,of the Subjects	No. of Filled Pauses
RS	AF1	0
	AF2	0
	BF3	2
	BF4	3
SS	AF1	0
	AF2	0
	BF3	0
	BF4	4

(b)

Style of speech	No .of the Subjects	No. of Filled Pauses
RS	Bfcll	0
	BM2	0
	BM3	2
	AM4	0
	AM5	0
	AM6	2
SS	BM1	0
	BM2	2
	BM3	8
	AM4	0
	AM5	0
	AM6	4

RS: Read-aloud Speech SS: Spontaneous Speech AF: American Female AM: American Male BF: British Female BM: British Male

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Table (2): Results of the Non-native Female Subjects in Read-aloud Speech

Style of speech	No. of Filled Pauses	No .of the Subjects	Style of speech	No. of Filled Pauses	No .of the Subjects
RS	29	EF14	RS	30 -	IF1
	36	IF15		50	IF2
	48	IF16		22	IF3
	19	IF17		19	IF4
	21	IF18		28	IF5
	39	IF19		59	IF6
	14	IF20		. 49	IF7
	9	IF21		18	IF8
	21	IF22		17	IF9
	38	IF23		21	IF 10
	35	IF24		15	IF11
	12	IF25		33	IF 12
	21	IF26		47	IF 13
	54	IF27			

IF: Iraqi Female

Table (3): Results of the Non-native Female Subjects in'Spontaneous Speech

Style of speech	No. of Filled Pauses	No .of the Subjects	Style of speech	No. of Filled Pauses	No .of the Subjects
RS	**13**	**IF14**	**RS**	**1**	**IF1**
	10	**IF15**		**2**	**IF2**
	17	**IF16**		**4**	**IF3**
	19	**IF17**		**0**	**1F4**
	1	**IF 18**		**0**	**IFS**
	2	**IF19**		**4**	**IF6**
	0	**IF20**		**0**	**IF7**
	1	**IF21**		**3**	**IF8**
	7	**IF22**		**2**	**1F9**
	27	**IF23**		**10**	**IF10**
	42	**IF24**		**2**	**IFll**
	1	**IF25**		**0**	**IF12**
	3	**IF26**		**1**	**IF13**
	2	**IF27**			

Table (4): Results of the Non-native Male Subjects in Both Styles of speech

Style of speech	No. of Filled Pauses	No .of the Subjects
RS	**0**	**IM1**
	0	**IM2**
	0	**IM3**
SS	**13**	**IM1**
	11	**IM2**
	22	**IM3**

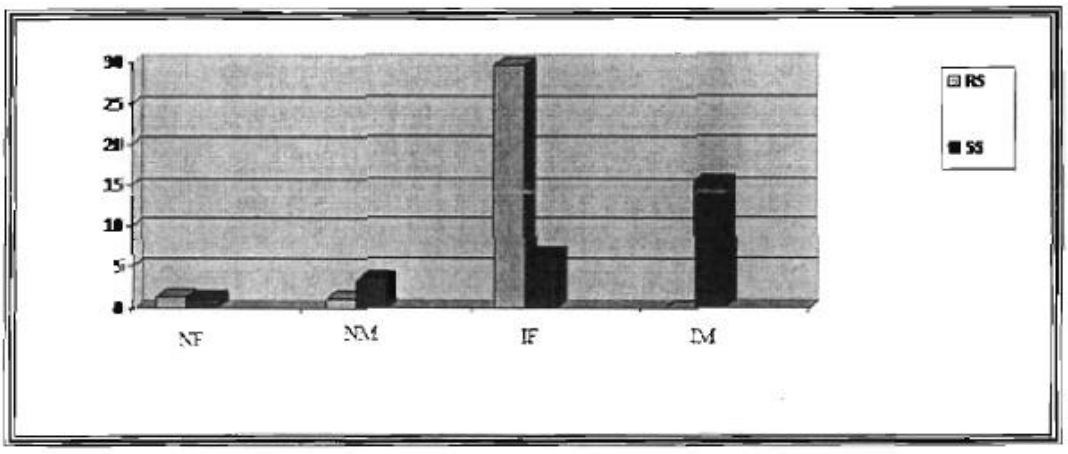
IM: Iraqi Male

Table (5): The Average of Filled Pauses Used by the Subjects

Style of Speech	Sex of the Subject	the Average of the Filled Pauses
RS	Native Females	1.25
	Native Males	1
	Non-native Females	29.7
	Non-native Males	0
SS	Native Females	1
	Native Males	3.5
	Non-native Females	6.4
	Non-native Males	15.3

Table (6): The Average of Using Filled Pauses by the Native Subjects

Subjects	RS	SS
AF	0	0
BF	2.5	2
AM	0.6	3.3
BM	0.6	1.3



[r]J Figure (1): The Average of Filled Pauses Used by the Subjects *i*\ NF: Native Females NM: Native Males

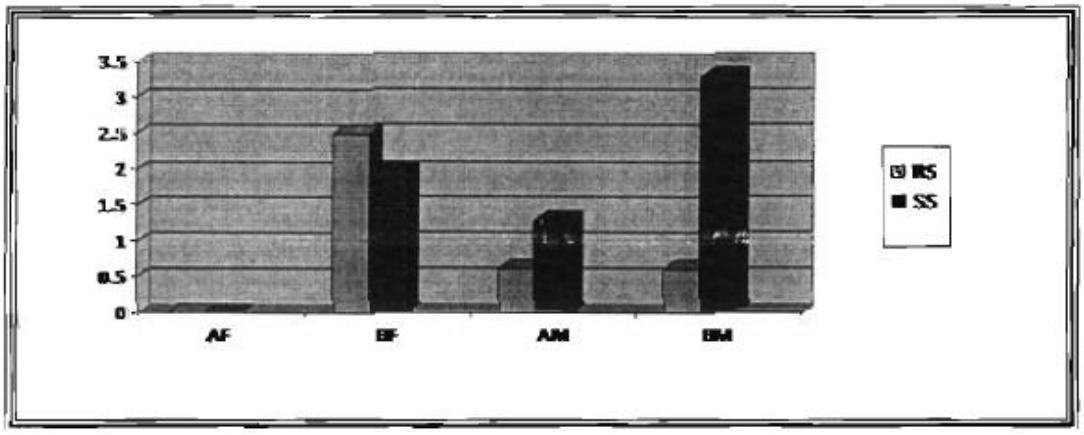


Figure (2): The Average of Using Filled Pauses by the Native Subjects Moreover the data were analyzed through a factorial experiment of three factors (sex, sample and speech). Using the least significant differences LSD at 0.05 level of significance by means of the SPSS programme v.17. The results showed that the sex factor (0.129), speech factor (0.617) and the interference of sex*sample (0.103) factors have no significance because P(Sig.) > 0.05. While the sample factor (0.001), sample*speech factors (0.003) and sex*sample*speech (0.000) factors have significance which means there are differences between the subjects on the one hand and the subjects and their reading and retelling and pausing on the other hand. This indicates that the subjects sample i.e. American, British and Iraqi, are causing the differences in results not their reading or retelling since if the study was applied to one group then the differences will be not clear or vivid.

Table (7): The Effect of the Variables among the American, British and Iraqi
Subjects

SOV	**P(Sig)**
Sex	**0.129**
Sample	**0.001**
Speech	**0.617**
Sex*Sample	**0.103**
Sample*Speech	**0.003**
Sex*Sample*Speech	**0.000**

11. Conclusions

Having an effect on read-aloud and spontaneous speech, filled pauses were investigated by an empirical study with a sample of American, British and Iraqi speakers of English. The study showed that there are differences in the use of filled pauses among the subjects of different accents of English. Besides, it unraveled the fact that American females do not use filled pauses in both styles of speech and native males

use filled pauses in spontaneous speech more than in read-aloud speech. As for the Iraqi subjects, the Iraqi females overused filled pauses in read-aloud speech and their results showed a little use in spontaneous speech, while the Iraqi males did not use filled pauses in read-aloud speech and overused filled pauses in spontaneous speech.

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APPENDIX I

1. The Personal Information Paper that the American and British Subjects Had to Fill Before the Recording Session began with:

Personal Information

Name:
Sex:
Age:
Place of Birth:
Address: Occupation:
E-Mail:

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The Subject Comment

2. The Personal Information Paper that the Iraqi Subjects Had to Fill Before the Recording Session began with:

No.	name	sex	age
1			
2			
3			
4			
5			

APPENDIX II: The Stories that the Subjects had to Read