

THE COMMUNICATIVE VALUE OF FILLED PAUSES IN SPONTANEOUS SPEECH

by

RALPH LEON ROSE

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Supervisor: Martin Hewings, Ph.D.  
Centre for English Language Studies  
School of English  
The University of Birmingham  
Edgbaston, Birmingham B15 2TT  
United Kingdom  
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## **Abstract**

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Filled pauses (FPs, e.g. *er*, *erm*) and other hesitation phenomena are ever-present elements of spontaneous speech and have been the subject of various psycholinguistic studies. However, recommendations have been sparse for language teaching; consequently little attention is given to FPs in English Language Teaching course materials. The present research addresses this gap. A systematic analysis of hesitation phenomena in a mini-corpus of spontaneous speech supports earlier research on FPs, but suggests a refinement: although researchers have generally combined open and closed FPs (*er* and *erm*, respectively), this study suggests they are independent. Recommendations are given on approaches to FPs in the language classroom. It is suggested that a focus on FPs may benefit listening comprehension by encouraging students to make use of speakers' pause time to process input. FPs may further benefit speaking ability by helping students to hold their conversational turns and to improve their apparent fluency. Specific activities designed to improve both listening and speaking skills are given.

For Dad  
scholar, teacher, and father

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## TRANSCRIPTION CONVENTIONS

Notation	Denotation
.	short silent pause
-	silent pause of normal duration
--	silent pause of unusual length
:	lengthening (colon placed after lengthened vowel sound)
er(m) <sup>1</sup>	short open (closed) unlexicalized filled pause
e:r(m)	long open(closed) unlexicalized filled pause
< xxx >	other paralinguistic sounds (laughing, throat-clearing, sighing, etc.)
//	tone unit boundary markers
↗	rising intonation
↘	falling intonation
↗↘	rise-fall intonation
↘↗	fall-rise intonation
→	level intonation

## Other conventions

- all type is in lower case except for places where upper case is necessary to distinguish a word (e.g., first person singular 'I', 'Ph.D.')
- tonic syllable is in all capitals
- intonation symbols immediately follow word containing tonic syllable
- asterisks (\*) may be inserted to highlight relevant portions of transcriptions
- lexicalized filled pauses are shown in italics
- some proper names have been replaced with generic markers (e.g., *jNAME<sub>i</sub>*) to preserve anonymity
- references for extracts from the corpus are in following format:

(Subject No. - Question No. : Line Nos. in APPENDIX 1)  
 e.g., (3-2: 350-352)

<sup>1</sup>There is little consistency in how filled pauses are rendered in transcript of spoken speech. The differences seem to center on the representation of the vowel sound in the filled pause. Some researchers use 'u' as in uh and um (particularly in North America) while others use 'er' as in er and erm (apparently preferred in Great Britain). Although the decision to use one or the other is perhaps arbitrary, for the sake of consistency, this work uses the preferred UK spellings to represent unlexicalized filled pauses in transcripts of spontaneous speech.

# Chapter 1

## INTRODUCTION

Radio, television, and film provide many insights into modern social values. Such social issues as relationships, marriage, divorce, child-rearing, health care, crime, law enforcement, and government recur frequently. These themes are obvious and prevalent. Less apparent are the underlying projections of reality. Those projections which have much to do with how people communicate are generally linguistically sensible as when a Texan's speech is represented by a drawl or when a preacher's lexical choices are limited to a more scriptural range. But many projections vary between inaccurate—as when a police officer's speech is littered with obscenities—and derogatory—as when African-American vernacular denotes a street gang member.

One presentation of reality that is nearly universal in media genres (e.g., dramatic presentations, formal news, etc.) is that normal human speech is highly fluent. Regardless of age, gender, ethnic background, socioeconomic status, religion, or creed, human speech is usually fluent. Disfluencies are occasionally employed in media to indicate some abnormality as when the speaker is being untruthful (e.g., with a lying witness in court), when the speaker has a dim wit (e.g., in a comic situation), or when the speaker suffers from a pathological condition. But even these apparent exceptions are successful in communication because the underlying presumption is accepted: normal human speech is fluent.

But is this correct in real life? Do people communicate with each other fluently and with little hesitation? A moment's reflection will reveal the unreliability of this presumption. Human speech is surprisingly disfluent, marked by frequent starts, stops, restarts, stammering, ers, and erms. Evidence can be found in the Collins COBUILD corpus. Filled pauses (rendered in the corpus as *er* and *erm*) are among the most frequent features of spoken language (see FIGURE 1.1).

Superficially, at least, hesitations in speech may appear to be the result of mental lapses or poor communication skills. In much spontaneous speech such hesitation is forgivable and sometimes even unnoticed: but it can be distracting and possibly irritating to listeners. Thus, public speakers are often urged to rehearse their presentations in order to become more fluent. However, not all hesitations can be explained by the speaker's inadequacy as a communicator. Some patterns serve a communicative purpose rather than betray a deficiency. Consider the following hypothetical remarks.

Table 1.1: Commonly-occurring Items in the COBUILD Spoken Language Corpus

Linguistic item	No. of occurrences
forms of the first-person pronoun	309,359
the	289,577
forms of the verb, to be	262,322
forms of the second-person pronoun	238,703
forms of the third-person neuter pronoun	187,096
filled pauses	181,498
indefinite article	176,977
of	146,236

- (1) "You have some...uh...jelly on your chin..."
- (2) "Uh...excuse me...what time is it?"

In the first statement, it seems unlikely that the speaker is having difficulty lexicalizing such a common word as jelly. Rather, it appears that he is trying to avoid embarrassing his interlocutor. Alternately, in the second statement, the speaker knows how to ask the time, but first needs to get the attention of someone to ask. Thus, the *er* serves as an attention-getting device.

In the world of English language teaching (ELT), however, the communicative value of hesitations in speech has been largely ignored. The prevailing view of hesitations seems to be that they are evidence of disfluency and should therefore be discouraged. This view is inadequate in that it assumes that fluency is directly related to communicative ability while disfluency is inversely related. The present study examines evidence that speech hesitations sometimes support and enhance communication and suggests ways they may be dealt with in the ELT classroom.

# Chapter 2

## LITERATURE REVIEW

The study of temporal variables in speech has progressed for several decades. Freida Goldman-Eisler is often credited with having established this field (cf., Griffiths, 1991) with her studies of speech rate and silent pauses. Gradually the field has enveloped hesitation phenomena—filled pauses, false starts, repeats, and lengthenings—although there are reservations about the appropriateness of this inclusion (e.g., Grosjean, 1980, cited in Griffiths, 1991). Presumably, these doubts stem from the subtly differing natures of these speech phenomena: studies of speech rate and silent pauses tend to use highly fluent samples of speech (in one study, Goldman-Eisler (1972), notes subjects were “highly literate people”, p. 103), while studies of hesitation phenomena are concerned more with speech disfluencies and disruptions. Nonetheless, since hesitation phenomena influence the time it takes the speaker to communicate a message, they are included in the study of temporal variables. This chapter reviews recent studies of hesitation phenomena, with specific attention to filled pauses.

### 2.1 Hesitation Phenomena

Spontaneous speech exhibits a variety of disfluent features, phenomena which slow the transfer of lexicalized information. The following subsections classify these as they are categorized in the literature. These classifications are illustrated with extracts from the corpus of this study. A complete text of the corpus is shown in APPENDIX 1.

#### 2.1.1 False starts

Occasionally, a speaker utters a few words and then stops in mid-sentence, as follows (note the \*highlighted\* section).

- (3) // \_ lightning has not STRUCK me yet // as far as what I FInally want to do //  
or what I’m really CApable . of doing \_ // er \_ we’ll SEE . // \*I still have\* I’m  
twenty-SEVen now // so I still have a few years yet to figure out . some THINGS .  
// (4-1: 537-539)

This is called a false start (Leech and Svartvik, 1994)—the speaker discards the first attempt at lexicalization; "I still have". A false start may be followed by a revised attempt to lexicalize the same idea, or by silence—thereby releasing the conversational turn.

### 2.1.2 Repeats

When a speaker iterates a lexical item in mid-sentence, it is called a repeat (Leech and Svartvik, 1994). Usually, just one word is repeated.

- (4) // I ju:st . think of always getting the best possible \*best possible\* . results with my STUdents . // (3-6: 408-409)

### 2.1.3 Restarts

Sometimes a speaker will utter a few words and then suddenly return to the beginning and iterate the same words. This is called a restart.

- (5) // bu:t yeah my first r \*my first reaction\* to THAT - // e:rm was a reaction to mySELF // (4-3: 568)

### 2.1.4 Self-corrections

A speaker will sometimes utter one word, and then a replacement which is to be understood to constitute a retraction of that word.

- (6) // I: . teach only the fifth . \*FIVE-year-olds\* // (1-4: 148)

This is called a self-correction. Self-corrections, repeats, and restarts are occasionally also referred to as repairs.

### 2.1.5 Lengthenings

When a speaker draws out the enunciation of a word it is called a lengthening as in the following extract.

- (7) // WELL . // it goes back \*to:\* . always wanting to be a MISsionary - // (2-5: 253)

The most common instance of lengthening (cf., Fox Tree and Clark, 1994, cited in Clark, 1994) occurs when the is pronounced as thee and the ending vowel sound is drawn out past its usually enunciated duration.

### 2.1.6 Pauses

One very common feature of spontaneous speech is hesitation in the form of pauses that can be one of three types (Dalton and Hardcastle, 1977). The first type is associated with the articulatory closure of stop consonants. These pauses range from 50 millisecond 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. A typical cutoff is 200 msec.

The second type of pause is associated with respiration and occurs when a speaker pauses in order to breathe. 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, p. 34). Goldman-Eisler (1968, cited in Dalton and Hardcastle, 1977) in summarizing studies of breath pauses, found that their rate and duration are likely related to 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).

The first two pause types are related to articulatory processes. The third type may appear before or after entire speech acts, sentences, clauses, or words, but tends to occur at significant grammatical locations (to be considered in more detail later). These may be either silent (or unfilled) pauses (hereafter, SP) or filled (or voiced) pauses (hereafter, FP) (Dalton and Hardcastle, 1977; Leech and Svartvik, 1994).

FPs are vocalized in a variety of ways. A pause might be filled with any of the following phonetic combinations: /a/, /am/, /u/, /um/, /e/, /em/, /m/ as in the following extracts.

- (8) // my cousin's daughter came down and said \*er\* princess diana was in an ACcident  
// (1-3: 76)
- (9) // so it's HARD? to say . // \*ERM\* . // probably: the: blame lies with many  
different people . // (3-3: 342-343)

FPs may also be lexicalized as in like and you know.

- (10) // . a:nd this bandstand also had \*like\* a kitchen area underNEATH // so it was a  
fairly HIGH bandstand // (1-2: 49-50)
- (11) // - when people are very OLD . // \*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 // (4-3:591-593)

Similarly, they may be lexicalized with expressions like 'well', 'so', 'okay', and 'let's see'. However, although such words and expressions may fill a pause, not all instances of these are FPs. Researchers distinguish lexicalized FPs (also called "verbal fillers", e.g., Stenstrom,

1994) on the basis that they, like unlexicalized FPs, 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). 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, all hesitation phenomena will be included in the present study, although the focus remains on FPs.

### **2.1.7 Normal non-fluency vs. pathologic disfluency**

Dalton and Hardcastle (1977) differentiate between normal non-fluency (the condition under which a normal healthy person hesitates in speech) and pathologic disfluency (when the hesitation is the result of some mental or physical condition—as in stammering). However, the present study deals only with normal non-fluency in spontaneous speech.

## **2.2 Filled Pause Research in NS-NS Interaction**

Research on FPs in interaction between native speakers (NS) falls into two general areas: FPs as indicators of mental states and processes, or FPs in conversational strategies.

### **2.2.1 Filled pauses as indicators of mental states and processes**

Dalton and Hardcastle (1977) list three associations between pauses and cognitive and affective states: syntactic correlates, cognitive variables, and affective-state correlates.

One function that pauses often serve in spontaneous speech is to mark the boundaries between syntactic units such as the phrase, clause, and sentence. This gives rise to another denotation: "juncture pauses". It is widely hypothesized that these pauses occur at such junctures because the speaker is making linguistic decisions requiring extra processing time. Goldman-Eisler (1972) found that the pause length was greater at these syntactic boundaries than between individual words in a clause. She further noted a relationship between clause type and length of pause: certain types of clauses resulted in longer pauses.

A hypothetical link between occurrences of FPs in spontaneous speech and such cognitive variables as abstractness and task difficulty has also been tested with some success. Reynolds and Paivio (1968) found that when defining abstract rather than concrete nouns, pauses increased. Other studies (e.g., Levin et al., 1967; Taylor, 1969; Siegman and Pope, 1965, 1966) have explored the relation between task difficulty and pause rate yielding positive correlations. However, Goldman-Eisler (1961, cited in Rochester, 1973) in an earlier study reported observing no change when task difficulty was varied. In summarizing these studies Rochester (1973) suggests that Goldman-Eisler's differing findings may have been a result of a relatively small sample size, or not taking frequency measures (rather than merely pause counts). Nonetheless, Rochester does warn of the potential unreliability of judging task difficulty, suggesting that conclusions about the relationship between task difficulty and pause occurrence must be treated with some skepticism.

Studies of the effect of affective variables on pause rate fall into one of two areas: those which consider predispositional anxiety and those which consider situational anxiety. A presumed positive correlation between anxiety and the occurrence of pauses has been partially supported with respect to SPs, but less so with respect to FPs, in some studies even reversing the correlation. Many of these studies have depended on two measures developed by Mahl (1959); the 'ah' ratio—the ratio of non-lexicalized FPs to the number of words uttered by a speaker (where words include all complete and incomplete words uttered as well as non-coherent sounds due to stuttering and FPs)—and the 'non-ah' ratio—based on lexicalized FPs as well as other hesitation phenomena (stops, false starts, stutters, etc.). Mahl hypothesized that greater anxiety would result in greater disruptions to spontaneous speech. His initial investigation (1956) gave preliminary support to the hypothesis.

However, later research has revealed a more complex relationship between hesitation phenomena and anxiety. In studies of predispositional anxiety by Cassotto et al. (1967, cited in Rochester, 1973), Pope et al. (1970), and Siegman and Pope (1965) either no significant correlations or a negative correlation between SPs and measures of anxiety was observed suggesting that subjects who are more anxious produce fewer SPs. Later, though, Ragsdale (1976) evaluated the correlation between hesitation phenomena (ah, non-ah, and SPs) and predispositional indices (Anxiety Index and Internalization Ratio as determined by the Minnesota Multiphasic Personality Inventory, Form R). The only significant correlations he found were between the non-ah ratio and both predispositional indices. Unlexicalized FPs ('ah' phenomena) were not observed to correlate with predispositional anxiety. However, subjects making many non-ah hesitations

*...are not only anxious, but their anxiety is overcontrolled. They have internalized their problems to too great an extent, and when they speak they do so with more stutters, repetitions, sentence changes, and the like than subjects with less anxiety and more externalization. (p. 264)*

Ragsdale's findings supported Mahl's original hypothesis, though only for non-ah hesitation.

Studies of situational anxiety (e.g., Kasl and Mahl, 1965; Krause and Pilisuk, 1961; Siegman and Pope, 1965) produced similar results: introduction of high anxiety topics in interviews results in greater occurrence of non-ah hesitations.

In spite of the seemingly common sense prediction that anxiety results in an increase in FPs there is no conclusive confirming evidence. However, Rochester (1973) offers a caveat similar to the one he made regarding studies of cognitive variables: researchers have yet to discover "an adequate validation procedure for [measures of anxiety]" (p. 74).

### 2.2.2 FPs in conversational strategies

Earlier studies of hesitation phenomena, which clearly reflected the prominent psychological view of language as behavior, gave way to a more communicative view in the 1970s with

increased research on the interactional value of hesitation phenomena. Most of these studies have focused on the use of hesitation phenomena either to organize and maintain conversation or to convey certain ideas or affective states.

However, before delving too deeply into studies of FPs in interactional situations it will be useful to review briefly some relevant terminology in discourse analysis. Stenstrom (1994), adapting from Sinclair and Coulthard (1975), defines the discourse hierarchy of spoken interaction as follows:

**Transaction** consists of one or more exchanges dealing with one single topic;  
one or more transactions make up a conversation

**Exchange** is the smallest interactive unit consisting, minimally, of two turns  
produced by two different speakers

**Turn** is everything the current speaker says before the next speaker takes over;  
it consists of one or more moves

**Move** is what the speaker does in a turn in order to start, carry on and finish  
an exchange, i.e., the way s/he interacts; it consists of one or more acts

**Act** signals what the speaker intends, what s/he wants to communicate; it is  
the smallest interactive unit (p. 30)

She further describes acts as being one of three types:

**Primary** can realize moves on their own

**Secondary** accompany and sometimes replace primary acts

**Complementary** accompany but rarely replace primary acts (p. 38-9)

Stenstrom further delineates several kinds of primary, secondary, and complementary acts. Four of these will be relevant to the discussion of FPs in spoken interaction: objecting, framing, filling, and stalling. Objecting is a primary act in which the speaker expresses an opinion differing from one previously stated. Framing is a complementary act which frames some section of discourse, that is, it signals a discourse boundary. Filling is also a complementary act which fills some gap in a speaker's discourse. Similarly, stalling is a complementary act which enables the speaker to prolong a conversational turn. The following discussion shows how some FPs can fulfill these acts in spontaneous speech.

The study of turns in spoken interaction is concerned with how interlocutors alternate their contributions to a conversation. Participants in a conversation typically follow certain conventions. Disregarding these conventions can result in communication breakdowns. These conventions are partly concerned with the clues that speakers (or would-be speakers) give in the process of taking, holding, or ending turns. Much research has been done on the use of hesitation phenomena with regard to conversational turns. The most notable conclusion of these studies regards turn-holding. It is widely agreed by linguists (e.g., Clark and Clark, 1977; Levinson, 1983; Finegan, 1994; Stenstrom, 1994; Wennerstrom, 1994) that FPs are commonly used by conversationalists to hold their conversational turn as in the following extract.

- (12) // everyone was . promised their LEAVE // and GOT it // on the DAY // and there was no monkeying aBOUT / \_ e:rm . so we were reCURring // (adapted from Stenstrom, 1994, p. 76)

The first part of the utterance is a complete act. Yet it is apparent that the speaker wishes to continue, but is not quite prepared to continue fluently. By inserting a FP here which operates as a filling act, the speaker is permitted to continue the conversation, while taking enough thinking time (concurrent with the FP) to organize the next act.

However, it is also suggested that FPs are useful in other means of managing turns. When starting a turn, speakers will occasionally begin with a FP (or series of pauses) as in the following extract.

- (13) // \*erm\* . well . er . he used to be my tutor // (adapted from Stenstrom, 1994, p. 68, tone choice not indicated)

Here, the speaker's use of FPs both establishes and signals control of the conversation as a framing act, yet also provides the extra time (as a stalling act) needed to formulate the following act (Stenstrom, 1994).

When a conversational turn is finished a speaker can signal this to other participants. Perhaps the most common way is by a silent pause:

- (14) A: // and they sort of hand it over to the poLICE // who disPOSE of it in // the way they think FIT // \* \_ \* //  
 B: // it's like ELla? // and Henry's FLICK-knife // (adapted from Stenstrom, 1994, p. 80)

Speaker A remains silent at the end of the utterance which signals that B may begin. This pause may however be filled:

- (15) A: // if I if I work quite WELL // I can do about three . a DAY // \_ \*erm\* - //  
 B: // I didn't REalize // you were working so closely with the CORpus // - //  
 (adapted from Stenstrom, 1994, p. 81)

Here, speaker A seems to try to continue, but fails to do so, relinquishing control of the conversation to B as a result of a framing act.

Crystal and Davy (1969), in their early work on stylistics, noted the use of FPs when answering questions and introducing a new topic. Consider the following extracts:

- (16) A: // but I was going to say could you make it the FOLlowing Saturday //  
 B: // \*erm\* YES // (adapted from Crystal & Davy, 1969, p. 117)
- (17) A: // that's FINE // YES // same TIME //  
 B: // same TIME // YES //  
 A: // GOOD //  
 B: // \*erm\* do you think \_ I don't even know which . I can't even remember what the chap's NAME? is // (adapted from Crystal & Davy, 1969, p. 118)

In both of these kinds of situations, Crystal and Davy say, there is a tendency to pause, and therefore to fill the pause with some vocalization. While they seem to combine these two instances, according to Stenstrom's act model these FPs have different functions. The first is a filling act, but the second is more accurately categorized as a framing act.

Stenstrom's model provides a useful method of analyzing conversational discourse when the conversation is fluent and acts are complete and distinguishable. However, this is not always the case. Problems do occasionally arise in conversation. Clark (1994) offers a tool for analysing disfluent sections of conversation by viewing them in terms of problem management. He argues that problems occur and are dealt with by a speaker in one of three ways: by prevention, by warning, and by repair. A speaker prevents problems by taking linguistic (or paralinguistic) actions to ensure that there is no problem as in ensuring that one has another's visual attention before beginning to speak. Speakers often warn of upcoming problems through the use of hesitation phenomena. Finally, they may repair problems that have already occurred by correcting them in speech, most often by self-correction. Clark notes that FPs are most often used in the warning strategy for managing problems in communication as in the following extract.

- (18) A: // i is . is it this year that er Nightingale goes //  
 B: // -- e:r no next year //  
 A: // -- \*e:rm\* -- sixty \_ f \_ //  
 B: // sixty five //  
 A: // \_ four sixty \_ five //  
 B: // yeah // (adapted from Clark, 1994, p. 247; tone units and tone choice not indicated)

Clark further notes that in the London-Lund Corpus of spoken language, word lengthening is frequently used to warn the listener. The *is* is usually pronounced *thuh*, but when lengthened is pronounced as *thee* and as such may signal a problem formulating the following noun phrase. In the corpus, 7% of problematic noun phrases were preceded by *thuh*, while 80% were preceded by a lengthened *thee* (Fox Tree and Clark, 1994, cited in Clark, 1994).

In addition to the aforementioned occurrences of FPs in managing social interaction there are many instances in which FPs fulfill particular communicative functions (as opposed to a discourse management function). All of these facilitate useful mitigations in conversations.

The first example of the mitigating use of FPs is in the context of adjacency pairs. Adjacency pairs are conversational exchanges in which the initiator's move limits the choice of moves the respondent may make, as in greeting-greeting or question-answer. In many such pairs there is a preferred response: a question prefers an answer; an invitation prefers an acceptance.

- (19) A: Would you like to meet for lunch tomorrow?  
 B: Sure! (Finegan, 1994, p. 351)

However, on occasion the responder must make use of a dispreferred response. Such utterances are not as short and simple, as in the following exchange:

- (20) A: Would you like to meet for lunch tomorrow?  
 B: Well, hmm, let's see... Tomorrow's Tuesday, right? I told Harry I'd have lunch with him. And I told him so long ago that I'd feel bad canceling. Maybe another time, okay? (Finegan, 1994, p. 351)

Here, the lexicalized FP well serves to mitigate the blow of refusing the invitation (Finegan, 1994; Levinson, 1983). According to Stenstrom's model, such FPs might be regarded as objecting acts. However, that raises the question of whether a FP can function as a primary act. Consider the following author-synthesized example:

- (21) A: May I borrow your car on Saturday night?  
 B: Er...  
 A: Or maybe I can ask Philip

In this case, B's hesitation is a complete act signaling objection to A's request. Thus, A offers an escape to maintain harmony.

Crystal and Davy (1969) note another mitigating use of FPs in order to downplay the introduction of more difficult terminology or phraseology. To illustrate, consider the following extract from a discussion about the relative advantages and disadvantages of single-sex and mixed grammar schools. Until this point, the discussion had proceeded quite informally, but here, A finds it necessary to introduce some more specific evidence.

- (22) A: // and a very GOOD school // . it's a BEAUtiful school // . very NICE //  
 B: // MIXED // . //  
 A: // NO // . //  
 B: // M // . this single sex BUSIness //  
 A: // single - YEAH // . YEAH // --- this s s you KNOW // it's a . \*sort of\*  
 -- outdated POLicy // which just goes on and ON // - it still tends to be TRUE?  
 // that most of the BEST grammar schools // are single SEX //  
 B: // M // -- //  
 A: // as far as I can GATHer // . best in terms of -- \*you KNOW\* //  
 B: // records to SHOW //  
 A: // YES // (adapted from Crystal & Davy, 1969, p. 101)

Speaker A wishes to introduce two formal concepts ('outdated policy' and 'records'). In order to preserve the informal nature of the discussion, A draws out their introduction with hesitations in the form of lexicalized FPs ('sort of -' and 'you know', respectively). In the latter case, it becomes unnecessary for speaker A to vocalize the concept since B says it. This has the effect of making A not appear too knowledgeable about the topic—which may have caused B to withdraw from the conversation. Instead, B was afforded an opportunity to

establish himself or herself as an equal partner in the dialog, thereby preserving its informal nature.

The same social interaction variable reappears in a different form in Eakins and Eakins (1978). In their study of sex differences in communication among North American males and females, female subjects were observed to use FPs much more often than male subjects. They interpreted this as a form of mitigation in order not to appear too knowledgeable or too aggressive.

*Women who do take the initiative more in conversations may feel guilty because of their past socialization to docility and their awareness of society's norms of talk for women. Perhaps to offset or play down their taking the initiative, some women try still to give some signs of "proper" nonassertiveness or submissiveness. Use of fillers and hesitations such as uhm, well, and so forth may serve as one such sign. (p. 48)*

The mitigative uses of FPs were explored in a quantitative study by Brennan and Williams (1995). They made use of a psychological construct that they refer to as the "feeling-of-another's-knowing" (FOAK) to estimate the degree to which a speaker's use of FPs related to the listener's impression of the speaker's knowledge. Initially, several recordings were made of subjects responding to a variety of trivia questions. From these, a sample of items was chosen including both instances in which subjects attempted to answer the question and in which they provided no answer (e.g., 'I don't know.'; 'I forgot.'). These samples were played for a different group of subjects without the original questions (i.e., the responses only). The subjects were asked to rate the following: for answers, "Do you think this was the correct answer to this question?" (1 - 'definitely incorrect' to 7 - 'definitely correct'); and for non-answers, "How likely do you think this person would be to recognize the correct answer to this question on a multiple choice test?" (1 - 'definitely not recognize' to 7 - 'definitely recognize'). They observed that for answers, the longer the hesitation (in this study, FPs), the lower the FOAK rating. This is consistent with the notions of Crystal and Davy and Eakins and Eakins in that FPs are often taken as evidence of not being very knowledgeable on a subject. Brennan and Williams also found that for non-answers, the longer the hesitation, the higher the FOAK rating. The more time spent by the speaker in searching for an answer, the greater was the impression that it had been known but merely forgotten. Though there is no evidence to demonstrate this, it might be hypothesized that when a speaker wishes to show a greater level of knowledge than he has at the moment, then he may use FPs to give this misleading impression. Those who have taken an interview style of test might attest to this.

### 2.3 Filled Pause Research in NS-NNS Interaction

To date, there has been little research on hesitation phenomena involving nonnative speakers (NNS). Much of such research has focused on the comprehension of spoken texts by NNSs in

which the SPs are varied in length and frequency (e.g., Blau, 1990). However, a few recent studies have given attention to FPs in NS-NNS communication.

Voss (1979) had NNSs of English transcribe recordings of NS's spontaneous speech. He observed that hesitation phenomena were a significant source of perceptual errors. In subjects' transcriptions, hesitation phenomena resulted in such additive mistakes as additional words or parts of words and occasionally in subtractive errors where the hesitation phenomena and sometimes other content words were omitted. For example, in the recording one phrase was "in say in Technical Education..." (say is identified by Voss as a lexicalized FP—in his words, a "hesitation signal", p. 137). Subjects rendered this utterance in a variety of ways as follows (although unclear in Voss, the initial *in* is presumed to be accurately transcribed).

same Technical  
 semi technical  
 santenical  
 scientitical  
 plane technical  
 sentenical  
 saying technical  
 centenical

Similarly, the FP in the recorded utterance, "a great string of erm \_ of activities" was interpreted to be a word:

a great string of an activities

It is apparent, then, that FPs in NS's speech can lead to decreased comprehension by NNSs. Furthermore, hesitation phenomena in NNS's speech influences evaluational judgments in listeners. Fayer and Krasinski (1987) observed the reactions of both NSs and NNSs of English to recordings of native Spanish speakers' English speech. Hesitation phenomena, along with pronunciation errors, were the greatest impediments to intelligibility as measured by what listeners reported as most distracting. However, with respect to annoyance, listeners regarded pronunciation errors and hesitation phenomena as less significant—although NNSs felt more annoyance with the speech than did NSs. In conclusion, the authors note, "...it appears that what may be distracting is not necessarily annoying" (p. 323).

## 2.4 Filled Pauses in ELT

At present there appears to be no research on FPs in the ELT classroom. There are, however, a few recommendations (e.g., Griffiths, 1990, 1991) regarding the need for attention to FPs and other hesitation phenomena in ELT lessons such as Voss (1979).

*More attention to [hesitation phenomena] in language teaching, e.g., in the form of more exposure to genuine, spontaneous speech, should help to remove or at least reduce a considerable source of perceptual problems for the nonnative speaker. (p. 138)*

Specific advice and guidance, however, were not found in the literature. It is this gap which the present study is designed to address. After a corroborative study of FPs from the author's own mini-corpus of spontaneous speech, specific suggestions will be made regarding a pedagogical approach to FPs in the ELT classroom. It is hoped that this work will bridge the gap between this well-researched area of human speech and its all-but-ignored role in the ELT classroom.

## 2.5 Conclusions

In this chapter, the author has sought to place the present study in context by providing an overview of the research on hesitation phenomena with special regard to FPs in spontaneous speech. After defining FPs as (apparent) gaps in fluency which are 'filled' by either such non-lexicalized sounds as er and erm or lexicalizations as so, well, and you know, this chapter explored the meaning of FPs from two points of view. First, research on FPs as evidence of cognitive states was reviewed revealing that FPs often mark syntactic boundaries and are positively correlated with abstractness and task difficulty. A positive correlation is noted between affective states (predispositional and situational anxiety) and FPs, but the results are not conclusive.

The functional and communicative uses of FPs in interaction were also reviewed noting their use in managing conversational turns and problems in speaking. FPs also are understood by listeners to indicate the degree of the speaker's 'knowing' and may be employed by speakers as a mitigating device.

Finally, the small body of research on FPs in second-language and English language teaching (ELT) situations was reviewed revealing little guidance for the language teacher.

CHAPTER 3 and CHAPTER 4 builds on the research reviewed here by providing a detailed and systematic analysis of the author's mini-corpus of spontaneous speech as the basis for clear and specific recommendations on the approach to FPs in the ELT classroom.

# Chapter 3

## PROCEDURES

This study reports the collection and analysis of a corpus of spontaneous speech. This chapter describes the speech sampling procedures as well as the process of converting the recordings into computer-analyzable data.

### 3.1 Collecting Samples of Spontaneous Speech

Four adult native North American English speakers (2 female, 2 male) of varying ages and backgrounds were interviewed by the author for an average of approximately fifteen minutes each. These interviews were recorded in an audio format. Before each interview the subject was told that the author was gathering samples of spontaneous speech for the purpose of discourse analysis: that is, no mention was made of FPs as a specific target of study. This was done to ensure that subjects would not become overly conscious of their speech and possibly affect the data.

After starting the audio recorder the author commenced the interview by posing questions to the subjects from the following list.

1. Give me a brief explanation of your background.
2. Tell me about a memory of your childhood.
3. As you know, Princess Diana recently died. What was your reaction to that event? Who do you think should be held responsible for her death?
4. Tell me about something that has made you really happy recently.
5. Why did you come to Japan?
6. What do you hope to accomplish here (in Japan) before you return?
7. What are your plans or dreams for the future?

The questions were intended to elicit spontaneous speech on a variety of themes. Some questions provided the subjects a comfortable position from which to speak (e.g., recent happy event, future plans), while others sought to press the subjects either to make decisions concerning how much to reveal about themselves (e.g., childhood memory) or to make difficult judgments (e.g., responsibility for Princess Diana's death). It was intended that the latter questions, at least, would result in a significant number of hesitation phenomena for study. Further, it was intended that by posing the same questions to each subject, comparisons could be made between subjects with regard to their individual hesitation patterns.

After posing a question, the author remained essentially silent with only infrequent and nonintrusive backchannels (uh-huh, I see), allowing the subject to speak until their turn was clearly relinquished. This was chiefly for two reasons, one linguistic, the other technical. First, the author did not want to influence the subjects' speech production. While it might be argued that a more intrusive interviewing technique would have prompted the subjects to use more hesitation phenomena (e.g., to hold their turn), interruptions are context-dependent and therefore require fast rhetorical ability—a quality which the author could not have employed uniformly. Although a professional interviewer may have generated a more interactive interview without introducing inauthenticity, the author decided that higher reliability would be obtained with a nearly silent interview technique. The second reason for this approach was related to the lack of professional recording equipment. Using only one microphone meant that audio tracks could not be separated and thus backchannels, interruptions, and other speech overlaps would be more difficult to distinguish and transcribe even if audible.

At the end of approximately fifteen minutes or the end of the question list, whichever came first, the interview was concluded.

## 3.2 Discussion

A total of sixty minutes of spontaneous speech was collected from the four subjects. However, two issues arose during recording that are worth mentioning here. First, it was extremely advantageous that two recording machines were used—audio and video. In the very first interview the author discovered that the audio recorder had not been properly started and therefore did not record the interview. In this case, the audio track of the video recording served as a needed back-up.

A total of sixty minutes of spontaneous speech was collected from the four subjects. One important issue arose regarding the length of the interviews. Based on a pilot interview with a fifth subject (not included in the corpus) fifteen minutes was deemed sufficient time to cover most of the seven interview questions. However, Subject 3 was the only one with whom it was possible to finish all questions. Subject 1 was more verbose than others, completing only five questions. Subject 2, on the other hand, was relatively brief and even declined to talk about a childhood experience. Finally, Subject 4 was the most verbose, completing only two questions. As a result only questions 1 (regarding background) and 3 (regarding Princess Diana's death) were answered by all subjects. Therefore concordance analysis of subjects'

responses to individual questions contains a degree of asymmetry: for Questions 1 and 3, Subject 4's responses are more heavily weighted; for Question 2, Subject 2's contribution (declination) is discursively different from those of the others (responses); for Questions 2, 4, and 6, there are contributions by just three subjects; and for Questions 5 and 7 there are contributions by only two subjects. FIGURE 3.1, which shows a syllable-count summary of the corpus, illustrates this imbalance (the syllable is used as the base unit of measure in this study since word-counts are considered inaccurate; e.g., Griffiths, 1991).

Table 3.1: Syllable-count Summary of Corpus

	-6 Subjects				
	1	2	3	4	All
Background	792	171	101	2,359	3,423
Childhood experience	392		185		577
Pr. Diana's death	1,317	335	636	1,349	3,637
Happy event	651	243	371		1,265
Japan		262	678		940
Future plans	570	97	200		867
Dreams/hopes		185	150		335
Overall	3,722	1,293	2,321	3,708	11,044

### 3.3 Transcription and Mark-up

The recordings were transcribed using a three-pass approach. In the first pass all utterances were transcribed without regard to hesitation, intonation, or discourse. That is, all words (including *er*, *erm*, etc.) were transcribed into text files—a separate file for each question and thus for each transaction. In the second pass, hesitation phenomena were marked in the texts. Finally, tone unit boundaries, tonic syllables (but no other prominent syllables), and tone choice (rise, fall, level, etc.) were marked on the third pass. A transcription of the full corpus can be found in APPENDIX 1 and a listing of the tags used in marking up the text is shown in APPENDIX 2.

Several problems were anticipated with the first transcription step (i.e., words only). A potential ambiguity in transcription of spontaneous speech was noted by Shriberg (1994) with regard to FPs. She noted the homophonous nature of the typical FP, *er*, with the indefinite article, *a*. She exemplified this ambiguity with the following extract.

(23) what type of a(?)/uh(?) plane is that flight (p. 44)

However, there was no difficulty at this stage in distinguishing the subject's utterances. In cases where *er* may have been confused with *a*, the rate of speech and intonation clarified

the intended utterance. However, there were a few particularly disfluent sections which required much tape-rewinding to transcribe accurately as in the following extract.

- (24) // and we were going like OH . // what HAPpened to her . // \*and THAT //  
and so it was like well you KNOW // and then that was came out that er\* . the  
newspaper people were probably cha CHASing? her -- // (1-3: 76-78)

With perseverance, though, even such passages as these were transcribed. There were, however, 19 places where a word or phrase could not be determined. These were marked as indistinguishable.

In the second pass, hesitation phenomena were noted and tagged in the text. This procedure offered greater challenges. In addition to marking instances of FPs, lengthening, false starts, restarts, and repeats, it was decided that SPs also be marked. Although they are not the focus of this study, knowledge of the location and type of SPs was desired at least to explore any patterns that might be found in the use of SPs with FPs.

In total, fourteen different hesitation types were marked in this study. FPs were first categorized as unlexicalized (UFP) and lexicalized (LFP). Each of these categories was further divided into two sub-categories based on length: short (SUFP, SLFP) and long (LUFP, LLFP). UFPs were finally subdivided again into two categories: open (SOUFP, LOUFP) and closed (SCUFP, LCUFP), that is, er and erm, respectively. This made a total of six distinct classifications for FPs. SPs were subdivided into three categories: short (SSP), normal (NSP), and long (LSP). All of the hesitation types used in marking texts are summarized in FIGURE 3.2.

Table 3.2: Summary of Tags Used in Text Mark-up

Description	Tag	Example
Short SP	SSP	[at a 'comma']
Normal SP	NSP	[at the end of a 'sentence']
Long SP	LSP	[when recalling a fact]
Short Open Unlexicalized FP	SOUFP	er
Short Closed Unlexicalized FP	SCUFP	erm
Long Open Unlexicalized FP	LOUFP	e:r
Long Closed Unlexicalized FP	LCUFP	e:rm
Short Lexicalized FP	SLFP	you know
Long Lexicalized FP	LLFP	we:ll
Lengthening	LENFP	becau:se
False Start	FS	my name what's your name
Restart	RS	did you did you go home
Self-correction	SC	he she went to the store
Repeat	RPT	I want to to come along

Although it was generally easy to identify places in the text which required tagging, it was more difficult to determine the precise category. The greatest difficulty was related to time-duration. The lack of advanced speech analysis equipment made it difficult to determine with precision and accuracy the duration of pauses. Thus, pause length was judged relative to the apparent rate of speech of its context. Each break in the continuity of speech was marked as a SP. When this pause was very brief it was considered 'short'. Alternately, when the pause was so long that it interrupted or otherwise distracted from the message, it was deemed long. All other SPs were marked as normal—their presence noticed, but not distracting. UFPs did not appear to be as brief as SSPs and thus only two categorizations were used, 'short' and 'long', although their durations coincide more with that of NSPs and LSPs, respectively. Words and phrases (e.g., you know, well, and so) which did not seem to carry functional weight in the message were marked as LFPs. Those uttered at a normal rate (relative to the context) were considered SLFPs, while those drawn out were tagged as LLFPs. Finally, words having enunciation drawn out past their normal duration were marked as instances of lengthening (LENFP). One may notice an apparent overlap between LLFPs and LENFPs. The key distinction between the two lies in the irrelevance of the former hesitation to the message. A good illustration of this concerns the conjunction *and*. Out of 338 occurrences in the corpus, the enunciation of *and* was elongated 59 times. In almost half (26) of these cases it served its usual conjunctive purpose as in the following extract.

(25) // so for fifteen years I've been living in jaPAN . // \*a:nd\* teaching ENGLISH -- //  
(3-1: 296-297)

However, in other cases, *and* did not connect the preceding and following clauses grammatically.

(26) // so I wanna teach as long as I CAN . // as long as the lord gives me HEALTH  
enough \_ // \*AND\* \_ // I'm seventy-six years OLD // SO \_ // I WANT to \_  
// even though I've been through the years prePARing for meeting the lord // I \_ I  
wanna make a:s good a preparation as I CAN . // (2-6: 270-273)

Here, *and* is distinguished from the surrounding elements with respect to grammar and discourse intonation. Therefore, such instances as these were marked as LLFPs.

Another issue dealt with during the transcription and mark-up process was deciding tone unit boundaries. Where the speech was mostly fluent, this posed no problem. However, in sections with a high concentration of hesitation phenomena it became difficult to demarcate tone units. For instance, consider the following extract.

(27) // and then one of the TEACHERs came by // and made some comment and then he  
LEFT // \*and SO\* . // he probably would have stayed longer if the teacher hadn't  
said something about oh you're in this class with these other KIDS |laugh; // (1-4:  
158-160)

In speech the *and so* would perhaps appear to connect preceding and succeeding statements smoothly. However, it does not fit either discursively or grammatically. The relationship between the two statements is not captured in any usual sense of (*and so*). Furthermore, careful attention to the recording reveals that the opening pitch level of *he probably would...* is higher than the ending of *and so*. On this basis, a boundary was drawn to contain *and so* (*and the following SP*) in one tone unit. This differs from instances where the pitch carries over into the following statement as in the following extract.

(28) // well I was jahemj excuse me I was born in BEDford massachusetts // in nineteen-  
hundred and twenty-ONE - // \*erm\* the: youngest of five CHILdren // and the  
only girl . in the FAMily - // (2-1: 196-197)

In this extract, the key of the short FP *erm* flows straight into the lengthened *the* (pronounced *thee*) and is therefore grouped with the following statement in one tone unit.

### 3.4 "Tagger" Application

The rather tedious process of marking up texts was facilitated by the author's development of a Visual Basic computer program appropriately called "Tagger". The main window of Tagger displays a text on the left side with a descriptive list of all mark-up tags on the right. By placing the cursor at some location in the text and clicking on the appropriate linguistic description, a tag is inserted at the cursor's location.

In order to reduce transcription errors, Tagger was programmed to check whether the insertion point was a proper insertion point (i.e., not in the middle of a word) and to determine whether to insert an additional space to separate the tag from surrounding words (e.g., for silent pauses, throat-clearing, etc.). Tagger was further programmed to treat each tag as an inseparable unit rather than merely a string of characters. This prevents the entry of unintentional internal changes to a tag such that it no longer conforms to the tag protocol (as this would diminish its usefulness in corpus analysis).

Finally, Tagger displays the tags in different colors for easy recognition against the black text: green for tone unit boundaries, tonic centers, and tone choice tags, blue for hesitation phenomena, and gray for others. See APPENDIX 3 for further information about Tagger.

### 3.5 Message-filtering During Transcription

Numerous times, the author listened to a section of the recording, and then typed in a transcription only to find that upon listening again all hesitation phenomena had been "filtered out" (Shriberg, 1994, p. 29) of the first transcription. That is, the author heard only the message and not the hesitations—despite the fact that his specific goal was to notice and transcribe those hesitations! A possible 'other-side-of-the-same-coin' phenomenon appeared in a later informal discussion with one of the subjects. Upon hearing that one focus of

the study was FPs the subject stated, "I didn't use any filled pauses." Even the subject's self-monitoring of speech filtered out hesitations. This psychological phenomenon will be discussed further in CHAPTER 4.

## 3.6 Analysis

Corpus analysis and concordancing was accomplished on an IBM computer using WordSmith Tools, Version 2.0 (Mike Scott, 1997), while speech rate and correlation calculations were performed with Lotus 1-2-3. Although the author's voice was recorded, transcribed, and tagged, it is not included in the corpus analysis. Furthermore, the response of Subject 2 to the childhood experience question (a declination to answer) was excluded from the study since it contained no FPs and its brevity (15 words, or 28 syllables) exaggerated the relevance of the two hesitations found therein (2 LSPs).

## 3.7 Conclusions

This chapter has provided an overview of the corpus—how the interviews were performed, recorded, and transcribed.

A discussion and interpretation of these findings in light of previous descriptions of hesitation (outlined in CHAPTER 2) will be given in CHAPTER 4 with a view toward making pedagogical recommendations in CHAPTER 5 for ELT.

# Chapter 4

## RESULTS AND DISCUSSION

The corpus provides an interesting view of FPs in spontaneous speech. Analysis of the data does not propose any significant model change, but confirms and deepens understanding of the linguistic functions of FPs as discussed in CHAPTER 2. This chapter details the behavior of FPs in the corpus with respect to each other, to other types of hesitation, and to individual subjects. A summary of occurrences of hesitation phenomena in the corpus is shown in FIGURE 4.1.

Table 4.1: Summary of Hesitation Phenomena in the Corpus

Hesitation Phenomena	Total occurrences in corpus	Significant collocates (within 5 words)	Subject
SSP	644	and, the, was, that, but	S
NSP	352	and, the, that, but, when, because	SOUFI
LSP	73	and, the, was	
SOUFP	103	and, the, that, but, think, then	
SCUFP	44	really, and, was	
LOUFP	28	and	
LCUFP	23	the, and	
SLFP	63	and, you know, so that, the, was, and so	
LLFP	32	well	
LENFP	199	and, the, was, but, they	
FS	50	and, the, that	
RS	16	the	
SC	30	that, the, and, not	
RPT	30	the, he's, she	

## 4.1 Filled Pauses in the Corpus

This section gives an overview of the corpus with respect to the types of hesitation phenomena marked in the texts.

### 4.1.1 Short open unlexicalized filled pauses: *er*

By far the most common UFP in the corpus was the short form of *er*. Altogether there were 103 instances. About one third of these are not located within one or two words of a tone unit boundary. These SOUFPs appear to serve as a brief stalling or filling act, giving the speaker a little extra time to process the immediately following word or phrase. It often occurs just after the speaker utters the beginning of a clause, thereby limiting the grammatical and lexical choices. Consider the following two extracts.

- (29) // and she's doing so much work fo:r work with AIDS- pa:tients // and and . \*er\*  
 crusading against the land MINES // (4-3: 560-561)
- (30) // and then we moved to an even SMALLer town // that didn't even have MILK  
 delivery \_ // so as a result we . \*er\* got milk in from the FARMer . // (1-1: 20-21)

In the first example, the subject explains some of Princess Diana's charitable activities. After citing one activity the subject utters *and* which requires listing a second activity. However, it appears not to be prepared. Thus the pause provides a little extra processing time. Similarly, in the second example above, the subject seems to know what to say and there are numerous ways of lexicalizing it. The subject might have said, "So as a result the milk was brought to our door", or "So as a result the farmer delivered the milk to our door", and so on. However, once the subject says *we* the choices are sharply reduced. Not yet prepared to finish the idea having started with *we*, the subject takes a brief extra moment—a SOUFP—to formulate the remainder of the clause.

More than 60% of SOUFPs are located at or very near tone unit boundaries (consistent with previous research regarding the location of FPs: e.g., Goldman-Eisler, 1972), often with an accompanying conjunction or SP (SSP or NSP). In these instances, the speaker appears to commit a stalling act (see 2.2.2), but for a slightly different purpose. While the non-boundary SOUFPs buy the speaker time with respect to the following word(s), a boundary SOUFP assists the speaker with respect to the entire following tone unit as in the following extract.

- (31) // well I was jahemj excuse me I was born in BEDford massachusetts // in nineteen-  
 hundred and twenty-ONE \_ // erm the: youngest of five CHILDren // and the only  
 girl . in the FAMily \_ // and \*er\* I went to . paROchial school \_ // GRAMmar  
 school // and HIGH school \_ // (2-1: 196-198)

After explaining about the family, this subject decides to continue speaking about schools attended. But how to organize the next statement appears not to be determined. Thus, the

subject hesitates by combining and with a SOUFP to form a stalling act giving enough time to formulate the following informing act—realized in the subsequent three tone units.

The most common words found preceding SOUFPs include such conjunctions as and, because, but, and then. When preceded by such a conjunction, the SOUFP is then often followed by a SP. When there is no accompanying conjunction then a SOUFP is almost always preceded by a SP as in the following extract.

- (32) // all the things that you KNEW // and all the things that were valuable to YOU  
 // as you were growing UP \_ // you KNOW // are disappearing one by ONE //  
 and SUDDenly // OH . // and I'm OLD . // I'm not part of this . thing that's  
 going ON anymore \* \_ // er\* . and to have something like that VANish \_ // when  
 I'm still twenty-SEVEN // I THINK // WOW // (4-3: 597-601)

A few different words collocate highly with UFPs as indicated in FIGURE 4. It is worth noting here some common clusters in the corpus which include both FPs and their collocates. The most common cluster found in the corpus is the conjunction and followed by an UFP (28 instances out of 198). Some slight variation is found in this structure as and is sometimes lengthened or a SP is inserted in the middle. Occasionally, and is replaced by but (7) or so (3). Almost all of the hesitations of this pattern are located at the beginning of a tone unit as in the following extract.

- (33) // I did my university: first university degree in wisCONSIn . // \*and er\* taught for  
 a couple years in miSSOURi . // (1-1: 27-28)

#### 4.1.2 Short closed unlexicalized filled pause: *erm*

The next most common UFP in the corpus was the short form of *erm* with 47 instances. The following extracts exemplify the three general types found.

- (34) // and I \_ finally ended up as a kind of a \_ COUNselor . // er a counselor fo:r a  
 camp . designed to: \_ prepare students fo:r \_ eventually \*erm\* going into . thei:r  
 HOMEstay // FAMilies // (4-1: 441-442)
- (35) // but basically we don't really know what caused the accident at THIS point in time  
 \_ // but if: it wa:s because of the ne negligence of somebody DRIVing . // \*erm\* \_  
 of course that person would be reSPONSible . // (1-3: 122-124)
- (36) // after all . it seems I'm always thinking about . when is the next TEST // or SO  
 on // \*ERM\* // I really don't have time to make long range . PLANS // (3-6:  
 410-411)

The first example above represents the least common SCUFP and is similar to the non-boundary SOUFP in that it apparently denotes a brief stalling act in order to prepare the following word(s). When using a non-boundary UFP, speakers prefer the open *er* (33 instances) to the closed *erm* (9 instances).

The second and third examples above represent the tone unit boundary cases of SCUFPs. The third example illustrates a stand-alone FP. It is not part of the previous tone unit and is separated from the succeeding tone unit by pitch level. That is, the pitch of the SCUFP is different from the starting pitch of *I really don't*. Furthermore, the preceding and following clauses make up grammatically distinct sentences. This pause thus performs both a stalling act and a framing act, marking the succeeding statement as a new block of discourse. The second example, however, differs from the first in that it falls in the middle of a grammatical sentence. That is, the end of the preceding tone unit is not all the subject wishes to communicate in that thought. The SCUFP appears to fill the gap while the subject processes the following tone unit—thereby closing the thought. In essence, this type of SCUFP is a middle-ground between the first and third. Approximately one-third of boundary SOUFPs operate similarly. However, a major difference in use concerns accompanying conjunctions. While SOUFPs are frequently accompanied by such words as *and*, *but*, and *so*, SCUFPs, with just one exception, are unaccompanied.

### 4.1.3 Long open unlexicalized filled pauses: *e:r*

The next most common UFP is the long form of *e:r*, occurring 28 times in the corpus. This number is perhaps too small to allow an accurate generalization about its function, but it does seem to parallel its shorter form, the SOUFP. The following three extracts illustrate this parallel with non-boundary SOUFPs, and boundary SOUFPs with and without an accompanying conjunction.

- (37) // it sounded INTeresting // it sounded GOOD // it something it sounded something  
 \_ \*e:r\* like what I wanted to DO . // (4-1: 470-472)
- (38) // whe:n somebody asks that in front of my SISTER-in-law // and she's the one who  
 brought me up after my with my brother after my PARENTS died \_ // er she sa:ys er  
 the lord hasn't TOLD her yet \_ // so \*E:R\* \_ // when he \_ makes known to me  
 that he wants me to go HOME . // then I'll GO // (2-7: 280-283)
- (39) // I wanted to come BACK . // to japan . to continue . er s learning about the  
 CULTure // and learning about . the LANGUage // and SO forth \_ // \*e:r\* I didn't  
 have it clearly in mi:nd . what I wanted to do FINally // (4-1: 472-474)

The only apparent difference between SOUFPs and LOUFPs appears to be their length, possibly indicating greater cognitive load due either to speech-processing or distractions (e.g., sudden intrusion of unrelated thoughts like 'Oh, I forgot to do this-or-that...', etc.).

There is, however, one oddity in the LOUFP occurrences. The majority were uttered by Subject 4. Only 4 occurrences (of a total of 28) were uttered by other speakers. Furthermore, all of the non-boundary LOUFPs were uttered by Subject 4. This may be due in part to Subject 4's slower overall rate of speech (197 syllables per minute compared to the average 224 syllables per minute) which might have produced relatively longer FPs. However, an attempt was made during the transcription process to correct for this by determining pause

length relative to enunciation rate (see 3.3). Therefore, it is difficult to conclude anything beyond an admission that extensive use of LOUFPs is idiosyncratic of Subject 4.

#### 4.1.4 Long closed unlexicalized filled pauses: *e:rm*

The least common UFP in the corpus was the long form of *e:rm* with just 23 instances. Like LOUFPs there may be too few to make any accurate generalizations. Overall, LCUFPs appear to parallel SCUFPs in that almost all occur at tone unit boundaries—approximately half of which comprise an entire tone unit. A slight difference can be found in that a few (6) boundary occurrences are accompanied by a preceding conjunction. The following extracts exemplify the three types of LCUFPs found in the corpus paralleling non-boundary SCUFPs and boundary SCUFPs.

- (40) // Anyway // and we moved \**e:rm*\* to a small town in misSOUri \_ // (1-1: 17-18)  
 (41) // and \_ it sounded like it was . CIty-like // but . \**e:rm*\* fu:rther out from the city than . of course TOkyo // or CHIba would be . // (4-1: 518-520)  
 (42) // but I don't know if it's POSSible |laugh| \_ // but possibly throu:gh usi:ng \_ literatures from other COUNtries // \**E:RM*\* \_ // would be working in the area of peace eVENTually // (1-6: 184-186)

Similar to SOUFPs and LOUFPs it appears that the primary difference between SCUFPs and LCUFPs is in their duration: the latter occurs when slightly longer hesitation is required.

#### 4.1.5 Short lexicalized filled pauses

There were 62 instances of SLFPs in the corpus, most (89%) of which occurred at tone unit boundaries. Typical lexicalizations included *and*, *you know*, *and so*, *but*, and *well*. SLFPs appear to fulfill the same functions as UFPs in the corpus. Non-boundary SLFPs appear practically anywhere—even splitting infinitives. The majority (84%) of boundary SLFPs occur at clause boundaries. That is, the preceding tone unit and the succeeding tone unit are grammatically separable units. The following extracts exemplify typical SLFPs.

- (43) // so \_ one of my jobs was to \_ \*kind of\* oversee their . DORM life // while they were going to \_ er mock \_ HIGH school classes // (4-1: 446-447)  
 (44) // so as a result we . er got milk in from the FARMer . // er // twice every other DAY . // i:n regular QUART jars // not real MILK bottles . // \*AND\* // which was an exPERience // (1-1: 21-23)  
 (45) // and then one of the TEACHers came by // and made some comment and then he LEFT |laugh| // \*and SO\* . // he probably would have stayed longer if the teacher hadn't said something about oh you're in this class with these other KIDS |laugh| // (1-4: 158-160)

Another observation worth making concerns the different ways FPs are lexicalized but not drawn out in enunciation. SLFPs are found in the corpus in the following expressions: you know, so that, in that, and so, well. While each of these expressions can convey a particular message, there are several times in the corpus when they do not appear to convey any message but function merely as 'filler', that is, as FPs. Compare the two highlighted (\*) instances of and so in the following extract.

- (46) // he probably would have stayed longer if the teacher hadn't said something about oh you're in this class with these other KIDS ;HA; // and SO . // \*and so\* I gave him back his book and he LEFT ;laugh; // \*and SO\* . // they're just kind of funny to have \_ a total STRANGer // who I mean I had never met HIM // (1-4: 159-162)

The first and so is a common discourse marker which indicates the following utterance is the latter half of a cause-effect sequence or the conclusion of a series of events. It flows in the speech with respect to grammar, discourse, and intonation. However, the second instance is apparently different, particularly with the accompanying SP. It seems to act similar to an UFP when used to hold a conversational turn. Their presence in the corpus lends support to the author's assertion (see 2.1.6 and 3.3) that UFPs and lexical fillers (in this study, LFPs) do carry similar functions and may be grouped together for analysis.

#### 4.1.6 Long lexicalized filled pauses

There are 31 instances of LLFPs. These differ from LENFPs because of their location at the juncture of two clauses (see 3.3). So all LLFPs occur at tone unit boundaries where the preceding clause is independent of the following clause. LLFPs operate as stalling or filling acts in the corpus, as in the following extracts.

- (47) // she wa:s probably . the most HUNTEd woman \_ // in terms of PHOtographs \_ // \*A:ND\* \_ // SO \_ // the wo:rd lost . a GREAT person . // (3-3: 321-322)
- (48) // so I wanna teach as long as I CAN . // as long as the lord gives me HEALTH enough \_ // A:ND \_ // I'm seventy-six years OLD // (2-6: 270-271)

With the exception of the lack of non-boundary occurrences, LLFPs appear similar to SLFPs.

#### 4.1.7 Tone choice patterns on filled pauses

A look at discourse intonation in the proximity of hesitation phenomena yields some interesting patterns. First, it is very common for FPs to be used at tone unit boundaries, more so at the beginning than at the end of tone units. In the entire corpus there are approximately 1,350 tone units; 26% of these have a FP at one boundary: 16% at the beginning of the tone unit, 11% at the end. However, in most of those cases where the FP is at the end of a tone unit, the unit is a stand-alone pause (i.e., somehow disconnected from the surrounding discourse) as in the following extract.

- (49) // and to get people to realize . the value of intercultural communiCAtion in those areas - // \*ERM\* // I'd kind of like to combine all of those into ONE career // (1-6: 182-184)

Such instances comprise almost all of the level tone units in the corpus. With regard to tone units with other tone choice patterns (i.e., fall, rise, fall-rise, rise-fall) there is a significant observation to be made. FPs almost never occurred between the tonic syllable of a tone unit and the end boundary of the tone unit. In the entire corpus only four cases could be found in which an FP did occur between the tonic syllable and end boundary, but each of these was a case where the final word of the tone unit was lengthened as the speaker apparently formulated the beginning of the next tone unit. Ordinarily, FPs occurred rather at the beginning or early parts of tone units.

All UFPs exhibited level tone. This is not surprising since *er* sounds like a nonverbal show of surprise while *erm* sounds like a sigh, neither of which is considered a FP. However, a fairly natural presumption that LFPs would exhibit the same behavior is not supported in this corpus. Many LFPs show non-level tone choice patterns as in the following extracts.

- (50) // bu:t yeah my first r my first reaction to THAT - // e:rm was a reaction to mySELF // OH? // \*you KNOW\* // how could you THINK that - // (4-3: 568-569)
- (51) // but this was a very close FRIEND // \*you KNOW\* // and if you're first reporting that he's DEAD // and all of a sudden he's aLIVE // (1-3: 94-95)

Most of these non-level LFPs (15 instances) occurred on such well-know filler phrases as *you know*, *and so*, and *well*.

#### 4.1.8 Interrelationships among Filled Pauses

The functional descriptions given above suggest a trio of FP pairs: SOUFP-LOUFP; SCUFP-LCUFP; and SLFP-LLFP. However, this is not supported by statistical analysis. FIGURE 4.2 shows the combined (i.e., all subjects) hesitation rates for all FPs and groupings thereof across the seven interview themes (i.e., questions in 3.1).

Hesitation rates across themes do not correlate very highly among the six types of FPs nor among any grouping of them (see FIGURE 4.3). Only two significant correlations are revealed. One, between SCUFP and LCUFP ( $r = 0.90$ ,  $p < 0.01$ ), underscores the close relationship between this pair. Second, a positive correlation between SUFPs and LUFPs suggest that there are two kinds of UFPs—*er* and *erm*—which vary in length of enunciation. However, a non-significant correlation between SOUFPs and LOUFPs limits confidence in this conclusion. A larger corpus with more speakers may shed more light on this relationship.

LFPs also show no significant relationship to each other nor to any other FP. Again, this may be due to the limited size of the corpus.

The near-zero correlation between OUFPs and CUFPs is particularly interesting in that it suggests that *er* and *erm* are independent. That is, when a speaker has a need to fill a pause, the choice between an OUFP and CUFP may not be arbitrary. There are apparently

Table 4.2: Combined Hesitation Rates (occurrences per 1,000 syllables)

	SOUFP	SCUFP	LOUFP	LCUFP	SLFP	LLFP	SUFP	LUFP	OUFP	CUFP	UFP	LFP
Background	9	7	2	2	1	10	15	4	11	9	20	10
Childhood experience	3	3	0	0	5	4	5	0	3	3	5	5
Pr. Diana's death	10	3	1	1	6	2	13	2	11	4	13	10
Happy event	4	2	1	1	6	2	6	1	4	3	7	7
Japan	8	0	2	0	16	3	8	2	10	0	10	10
Future plans	3	7	1	2	6	4	10	3	4	10	13	13
Dreams/hopes	5	3	3	0	3	9	9	3	8	3	13	13

Table 4.3: Filled Pause Hesitation Rate Correlations Significant correlations ( $p < 0.05$ , two-tailed) shown in boldface (Correlations are not shown where data overlaps: e.g., UFP and SOUFP)

	SOUFP	SCUFP	LOUFP	LCUFP	SLFP	LLFP	SUFP	LUFP	OUFP	CUFP	UFP	LFP
SOUFP	1	-0.07	0.53	0.11	0.11	0.19		0.45		-0.02	0.3	
SCUFP		1	-0.03	0.9	-0.68	0.46		0.66	-0.07			-0.43
LOUFP			1	-0.05	-0.03	0.7	0.39			-0.04		0.56
LCUFP				1	-0.41	0.32	0.71		0.07			-0.22
SLFP					1	-0.58	-0.38	-0.33	0.08	-0.61	-0.38	
LLFP						1	0.46	0.73	0.35	0.43	0.56	
SUFP							1	0.8				-0.06
LUFP								1				0.23
OUFP									1	-0.03		0.4
CUFP										1		-0.38
UFP											1	0.02
LFP												1

differing conditions that invoke the use of one or the other. This may have repercussions on future pausological studies as researchers have commonly not distinguished between the two.

## 4.2 Other Hesitation Phenomena in the Corpus

### 4.2.1 Lengthening

The most common form of vocalized hesitation in the corpus, lengthening, occurs 198 times. Lengthening occurs anywhere on any word regardless of grammar except that a word's pronunciation should be easy to lengthen with respect to vowel-sound and end-sound. For example, consider the words in FIGURE 4.4.

Table 4.4: Frequency of Lengthening of Most-common Words in Corpus

	Frequency Rank			Frequency Rank	
	in Corpus	when Lengthened		in Corpus	when Lengthened
I	1	10	MY	14	-
AND	2	1	ERM	15	-
TO	3	2	YOU	16	-
THE	4	3	THEY	17	7
A	5	9	OR	18	11
THAT	6	21	THINK	19	-
OF	7	-	HAVE	20	-
IN	8	6	FOR	21	23
WAS	9	5	I'M	22	-
ER	10	-	IF	23	15
SO	11	4	NOT	24	-
IT	12	-	BE	25	-
BUT	13	8			

The most common words in the corpus (as indicated by "Rank in Corpus") are also the most commonly lengthened words (as indicated by "Rank in Lengthening") with a few exceptions. Lengthened words are primarily those which do not have a short vowel sound or a stop consonant at the end (this does not explain why *my*, *you*, or *be* are not lengthened, although this may be due to the relatively small size of the corpus). Such words as *it*, *think*, and *not* are difficult to draw out. So too is *have*, which, although its end-sound is not a stop consonant, is very difficult if not unpleasant to lengthen. In one case a subject needed both to use it and also to stall for a little more processing time. Rather than lengthening it, the subject uttered a repeat, as follows.

- (52) // . I guess more students started e:r were sent to . koREa // to jaPAN // and SO forth . // and eventually not so MUCH . // \*it it\* eventually turned into . a: TEACHer's exchange // (4-1: 484-485)

Previous research (e.g., Fox Tree and Clark, 1994, in Clark, 1994) has noted a pronunciation change when the definite article is lengthened before problematic noun phrases. The corpus also exhibited this phenomenon. Of 253 occurrences, the definite article *the* was lengthened 11 times. All but two of these were pronounced *thee* as in the following extract.

- (53) // so it's HARD to say. // ERM . // probably: \*the:\* blame lies with many DIFFerent people . // (3-3: 342-343)

In 183 instances of *a* in the corpus, only four were lengthened. Moreover, in each of these cases, it was pronounced with the long vowel sound, [ay], as in the following extract.

(54) // it it eventually turned into . \*a:\* teacher's exchange // (4-1: 485)

## 4.2.2 False starts and repairs (restarts, self-corrections, and repeats)

False Starts and Repairs are frequent: 50 FSs, 16 RSs, 30 SCs, and 30 RPTs. These appear to serve the same function as FPs in spontaneous speech, to stall or fill time before continuing communication. The following extracts illustrate these four types of repairs, respectively.

(55) // \*he's only\* he'll be fifty-four in JANuary // SO -- // (2-3: 231-232)

(56) // that's HARD to say . // part of it it's because \*it's because\* who she IS . // after all if you're rich and famous people always want to get PHOTOS of you // (3-3: 331-332)

(57) // I was really SHOCKED // that's what I reMEMber . // being shocked at my own . original \*my FIRST\* reaction // (4-1: 555-556)

(58) // I guess being on a team was . an exPERience . // so that was one of the memorable \*MEMorable\* experiences - // because it meant a LOT to me . // (3-2: 309-310)

## 4.2.3 Interrelationships of other hesitation phenomena with filled pauses

In section 2.5 the author argued for the inclusion of lengthening in a study of FPs on the basis of their common role of delaying speech for the sake of planning. The author hypothesized a relationship between LENFPs and FPs. However, statistical analysis of the corpus does not reveal any significant relationship between lengthening and other hesitations. The most significant relationship found is with LUFPS ( $r = -0.65$ ). Had it been just a little stronger ( $r = -0.67$ ) it would have been significant at the  $p < 0.1$  level (two-tailed). Although no reliable statistical relationship is apparent between LENFPs and other hesitations, they may yet serve the same psycholinguistic purpose in spontaneous speech while functioning independently.

## 4.3 Further Observations

### 4.3.1 Hesitation idiosyncrasies

The corpus reveals differences between subjects' hesitation strategies. Some favor certain hesitation types while others have idiosyncratic lexicalizations of FPs (cf., Reynolds and Paivio, 1968). FIGURE 4.5 shows a summary of the corpus with respect to each subject.

Subject 1 may most nearly be called the 'average' speaker in this study except with regard to speech rate which was the highest of the four subjects. Rates of hesitation were very nearly the same as the average for all subjects yet revealed a slight preference for SUFPS and LSPs, as in the following extract.

Table 4.5: Statistical Summary of Corpus with Respect to Individual Subjects

Subject	Speech Rate (syllables per min.)	Hesitation Rate (hesitations per 1,000 syllables)	Preferred Hesitation Types
1	248	65	LSP, SOUFP, SCUFP
2	220	68	LSP, SLFP, SC
3	233	41	LLFP, LENFP
4	197	71	SOUFP, LOUFP
Overall	222	63	

- (59) // then I \*ER - \* // I had an older BROther // and \*ER -- \* // I and my mother and my brother went OUT there // (1-1: 10-11)

Subject 1 also exhibited a unique FP lexicalization.

- (60) // and one of the newscasters got real angry on television and SAID . // I wish they'd get this information RIGHT // \*and THAT\* // and they kind of looked on as being negative that he showed eMOtion . // (1-3: 92-94)

In this extract and that does not contribute anything to the message. In fact, once our attention is drawn to it (as here in print) it even creates a slight ambiguity in the text. This is an example of an idiosyncratic FP lexicalization. Altogether, Subject 1 used this SLFP 10 times, while no other subject used it even once.

Subject 2 maintained a near-average Speech Rate (220pm) and hesitated with LSPs and SLFPs.

- (61) // I think in the beginning it was kind of a SELFish: . er motive // but I think I've learned to \* -- you know\* overcome THAT // and make it more SPIritual . // (2-5: 258-260)

Also prevalent in Subject 2's speech were SCs.

- (62) // and she's the one who brought me up after my \*with my brother\* after my PARents died - // (2-7: 280-281)

Overall, Subject 2 was, like Subject 1, close to 'average'.

Subjects 3 and 4 comprise the 'extremes' in this corpus. With a Speech Rate of 233 spm, Subject 3 was the second fastest speaker yet used only four UFPs in almost ten minutes of speech. Hesitation rate, the lowest of all subjects, was not similarly low, however. The rate was buoyed by a large number of LENFPs. In fact, Subject 3's rate of lengthening (22 per 1,000 syllables) was almost 30% greater than any other subject. This subject accomplishes hesitation by lengthening one or more words before resuming a normal rate of speech.

(63) // but it doesn't save the VIDEos;TCFI; - // it \*sa:ves\* . the: . POINTers . //  
to where the video is GOing - // (3-4: 360-361)

Subject 4 represents the other end of the spectrum in this corpus, hesitating 71 times per 1,000 syllables (compared to the overall rate of 63 hesitations per 1,000 syllables). Particularly prominent were SOUFPs and LOUFPs, which account for more than one-quarter of the hesitations produced by this subject and were sometimes clustered near each other.

(64) // o originally they sent students and TEACHers // to . to interACT // \*e:r\* to  
live among \*e:r\* at first . \*er\* chiNESE people - // in CHIna . // (4-1: 482-483)

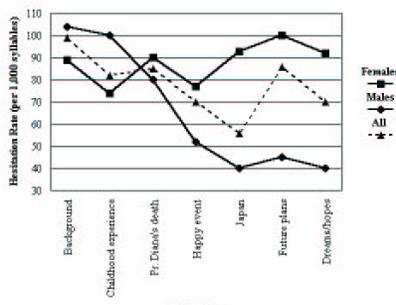
In spite of the high hesitation rate, this subject's slower speech rate (197 spm) resulted in the same hesitation rate as the overall hesitation rate for all subjects (see Figure 8). Subject 4's speech, therefore, was marked by a slow but steady pace.

### 4.3.2 FPs as mitigating devices

Eakins and Eakins' (1978) research suggested sex differences in FP use. Women, they suggest, are more apt to mitigate their assertiveness through the use of FPs. On the whole, this was also found in the corpus. Hesitation rates for the two female subjects (1 and 2) was consistently higher than for the two male subjects (see FIGURE 4.1). No doubt, such data might lead to some very unpopular if not controversial conclusions. However, it seems likely that there are two phenomena at work here. The first is that when asserting a point, one may 'soften the blow' by showing hesitation in the form of FPs. Another phenomenon is the pre-1960's predominant social view that women should be less assertive than men. Perhaps not coincidentally, both female subjects were reared prior to the social movements of the 1960s. It is not surprising to find that overall these female subjects used more FPs. However, all subjects' hesitation rates increased when they were being more assertive. Both Subject 1 and 2 showed the highest hesitation rate in the hopes/dreams theme. In the middle of this theme Subject 1 argued a potentially controversial point about language teaching in Japan. Subject 2 revealed a strong spiritual basis for her hopes and dreams. The male subjects, 3 and 4, on the other hand, exhibited the highest hesitation rates in the childhood experience and background themes, respectively. Subject 3's story about winning a sports trophy in junior high school was concluded with a clear moral. Subject 4 appeared to interpret the question ("Tell me about your background.") as a question about professional qualifications.

All subjects displayed higher hesitation rates during attempts to assert a particular viewpoint. However, this naturally leads to the question of why the Princess Diana theme did not elicit higher hesitation rates since subjects were required to make controversial value judgments. It is possible that most subjects had already discussed such issues before the interview. It may have been better to use a theme which was less strongly rooted in the present.

Figure 4.1: Male-Female Hesitation Rates (per 1,000 syllables)



### 4.3.3 In-process awareness of FP use

Section 3.5 discussed one's awareness of hesitation during speech production or reception. During the initial transcription phase the author frequently missed disfluencies. Similarly, one subject later stated that she had not used any FPs. Shriberg (1994) has identified this phenomenon as "message filtering" (p. 29). These coincidences suggest the hypothesis that although linguists identify FPs and such as "disfluencies", they are, in fact, attempts by a speaker to appear more fluent—and in fact they are quite successful at it. The author regrets that post-interview feedback was not generated from subjects regarding such issues as these, but is pursuing this as a subject of future study.

### 4.3.4 Conclusions

A systematic analysis of the corpus through concordancing and correlation calculations suggests some patterns of hesitation accomplished with FPs. Cognitively, FPs generally serve as stalling acts to give speakers more time to prepare a near-future word or phrase. When used between tone units they may serve as a framing device, marking the following as a new block of discourse. FPs may also function as mitigating devices, smoothing the communication channels when one is asserting a particular point of view. Subjects use FPs and other hesitation phenomena in widely varying patterns: some prefer UFPs with occasional repairs while others prefer to combine lengthening with SPs.

Overall, few significant relationships between FPs and other hesitation phenomena were revealed. There is some support for the notion that the short and long version of each FP type (er, erm, and lexicalizations) are closely related. Study of the corpus further suggests that, contrary to pausological research practice, open and closed UFPs are independent and should not be combined in FP studies.

Finally, the corpus demonstrates a variety of idiosyncratic methods of hesitation and lexicalizations of FPs.

The corpus does not suggest any major change in the models of FP use outlined in

the literature review of CHAPTER 2, but does suggest a few refinements. CHAPTER 5 integrates these findings with previous research in order to produce suggestions for an approach to FPs in the ELT classroom.

## Chapter 5

# FILLED PAUSES IN THE ELT CLASSROOM

In spite of the fact that FPs are such a conspicuous part of the spontaneous speech of native English speakers, it is extremely difficult to find ELT coursebooks which deal explicitly with FPs (or any type of hesitation, for that matter). At best, a small handful of texts present FPs implicitly and with no accompanying explanation. A typical approach is to insert them in dialogs that have some other linguistic target, or include them in fixed expressions for controlled practice. One place where FPs appear is in lessons practicing accepting and declining invitations. Although this would present a perfect opportunity to note the function of FPs in mitigating the effect of a declination, texts make no mention of it. However, ELT writers may not be wholly at fault for this oversight. FP researchers have apparently made little effort to state implications of their research for ELT. It is this oversight that the present chapter is intended to address. Specific suggestions for ELT practitioners are made concerning integration of the current study with previous research.

### 5.1 Some General Principles

Two general principles follow which underlie the discussion in this chapter.

#### 5.1.1 For intermediate and advanced students only

FPs need not and probably should not be explicitly addressed in beginning-level classes. The linguistic needs of students at this level does not warrant attention to FPs. Such attention would likely be counterproductive as when a teacher gives instructions punctuated with FPs to the utter bewilderment of students. Furthermore, as the goal of beginners is to begin to process meaningful messages in the target language, a focus on the phenomena that occur when this process fails seems premature. Just as one must first learn how a computer should work before one can learn computer repair, one must first learn how to process language properly before one can learn how to deal with processing problems.

To their credit, few, if any, beginning-level texts explicitly incorporate FPs in their syllabus. However, this is not as true of the other primary source of input for beginning students, the teacher. Teachers of beginning-level students should present their lessons with as little disfluency as possible. *Ers* and *erms* only provide fodder for learners' miscomprehension and confusion (cf., Voss, 1979). In response to this principle, the remainder of this chapter discusses a pedagogical approach to FPs for use with intermediate and advanced language students only.

### 5.1.2 Increasing awareness

FPs and other hesitation phenomena are ubiquitous elements of spontaneous speech. As such, lessons need not be explicitly focused on them as one would focus on such aspects of grammar as the present tense, or on such language functions as giving a compliment. Rather, just as one might offer a brief aside about the intonation of a given expression in a lesson and how differing intonations might lend different meanings, so too should a study of FPs be tangential to the language lesson: a neglected and dangling thread finally rewoven into the main knot. The theoretical discussion and practical suggestions of this chapter are given in this integrative spirit.

## 5.2 Listening Comprehension

An explicit focus on FPs may enhance students' listening comprehension.

### 5.2.1 Filtering filled pauses

The present study suggests that native speakers filter out disfluencies and process only the speaker's intended utterance. Language students also need to develop this skill in order to improve their listening comprehension. Although there is an apparent overlap between this skill and the skill of 'listening for gist', the author asserts that the two are separate skills—hypothesizing that filtering occurs before processing while determining gist occurs after. To illustrate, consider which is more likely after a student has produced the gist of an aural passage: that the student can recognize which words were used in the original passage, or that the student can recognize which disfluencies occurred during the passage. If it is the former (as the author predicts), that implies that disfluencies were discarded before processing. Hence, filtering and listening for gist are distinct listening skills and should be considered separately.

One possible approach to developing students' filtering ability is to present a disfluent sample of spoken English and have students produce the speaker's intended utterance. For example, the following extract from the corpus might be played for the students.

(65) // this was like around er -- nine o'CLOCK // (1-3: 80)

Students would then be expected to produce (either in writing or in speech) the following: "This was around nine o'clock." The difficulty of the task can be varied by choosing passages with greater hesitation as in the following extract.

(66) // bu:t yeah my first r my first reaction to THAT - // er:m was a reaction to mySELF  
// (4-2: 568)

Drawing learners' attention to FPs in spontaneous speech in this manner will improve their ability to filter FPs in real-life situations while reducing the likelihood of miscomprehension due to such speech elements.

### 5.2.2 Adapting to a variety of hesitation strategies

The corpus suggests that when language learners meet native speakers of the target language they are likely to encounter a variety of idiosyncratic hesitation strategies. Therefore, it would be beneficial to incorporate a variety of samples of speech by native speakers in the classroom (cf., Voss, 1979). At present, many publishers offer materials that employ a variety of samples with respect to such variables as dialect, gender, and age. However, students may also benefit from materials that employ speakers for their various hesitation strategies.

### 5.2.3 Using filled pauses to gain processing time

Linguists largely agree that the most common function of FPs is to stall while subsequent output is being processed. Students might benefit by learning to take advantage of such lulls in interaction to process input. Furthermore, given the evidence from the corpus that FPs rarely occur in the latter part of a tone unit, using pause time to process preceding input allows the learner to be better prepared for the central information of the current tone unit.

One possible exercise designed to enhance this skill would be to play a sample of speech only up to and including a FP. Then, the students would be asked to predict the remainder of the utterance. For example, the following extract from the corpus might be used in such an exercise.

(67) // -- partly . everybody is reSPONsible - // ERM\* // while- the newspapers did hound her sigNIFicantly . // er\*\* much more than the:y hounded almost any other ceLEBrity - // and while . movie people a:nd er\*\*\* other . er\*\*\*\*\* famous people . sometimes WANT that publicity // there are other times when they want their PRiVacy - // (1-3: 108-111)

With this extract, playback might be halted just after any one of the four FPs. If the tape is stopped after the first or second FP, the listener would be expected to predict a greater chunk of the discourse, while if the tape is stopped after the third or fourth FP then listeners need to predict only a couple of words. In this way, task difficulty can be varied.

### 5.2.4 Determining the speaker's knowledge

Brennan and Williams (1995) demonstrated that speakers are perceived to have greater knowledge when responses to questions are accompanied by FPs (as if they had once known a fact but had forgotten it—see discussion in 2.2.2). Language learners may find it useful to be aware of this psycholinguistic phenomenon in situations where it is necessary to judge the knowledge of a native speaker (e.g., when the nonnative manager of an English school is interviewing applicants for a native English instructor's position).

An activity that would develop this insight in students would be to play for them a series of native speakers' recorded responses to a variety of factual questions in which some responses are lies. Students would be expected to detect the lies (since clues to untruthfulness can also be visual it is recommended that audio only be presented to students). This activity might be similarly done in pairs where one student attempts to lie while the other plays the lie detector. However, some may question the wisdom or even the ethics of teaching students how to tell a lie.

## 5.3 Speaking Ability

The speaking ability of students may be improved by an explicit focus on FPs.

### 5.3.1 Managing one's conversational turns

Students of the author frequently remark that they know what they want to say, but they can't put it into words promptly. This is probably a universal frustration for language learners. One course of action in such cases might be the use of SPs although this may be misinterpreted as the closure of a conversational turn. Alternately, speakers might fill such pauses with sounds from their native language (e.g., in Japan, *eeto* or *ano*) which might create confusion for listeners. Thus, learners might well be encouraged to hold their conversational turns through UFPs and LFPs of the target language.

One activity that might achieve this goal entails competition. Small groups carry on a conversation on a relatively easy topic (one to which everyone may contribute). Speakers should try to speak as long as they can and may hold their turns using FPs. Other students may take (or 'steal') the conversational turn when there is an appropriately long enough SP. At the end of a specified time the winner may be determined as the one who held the conversational ball for the longest total time.

### 5.3.2 Increasing apparent fluency

Evidence from the data-gathering process in this study suggests that speakers may use FPs in order to sound more fluent. This strategy may also be encouraged in language learners in order to improve their apparent communicative competence. An activity that might develop this ability is an in-process fill-in-the-blank or sentence-completion exercise. Students would



### 5.4.1 The lesson

First, a variety of stalling expressions are reviewed as shown in FIGURE 5.1. Little effort is spent in explaining them as they are chiefly expressions most likely encountered during the beginning stages of students' language learning. What is emphasized is how all these expressions are grouped under the umbrella of stalling functions.

Table 5.1: Expressions used to Avoid Silence

Stalling expressions	Asking for repetition		Concession
er	Excuse me, could you say that again please?	(more polite)	I'm not sure.
erm	Would you say that again?	—	I don't know.
hmm	What did you say?	—	
well	Excuse me?	—	
let me see	Pardon?	—	
	What?	—	
	Huh?	(less polite)	

The class is divided into two teams. The classroom is arranged as a quiz show set with the teacher in the center serving as the quiz master. Using a prepared list of questions (both factual and personal: see APPENDIX 4 for a sample), the teacher alternates between teams, asking each student a question in succession. For students, the object is to give a fluent response (defined as a non-silent response), though not necessarily a correct answer to the question. Points are awarded to teams as follows.

0 points if the student remains silent for 5 seconds.

1 point if the student gives a fluent response ending in an incorrect answer or a concession.

2 points if the student gives a fluent response that includes a correct answer.

Incorrectly answered questions are given to successive students (up to a limit of three times) until answered correctly. Then a new question is given to the next student. However, used questions may reappear later in the game.

### 5.4.2 Discussion

This lesson exemplifies how FPs may be integrated into a lesson designed to develop better communication strategies. The lesson as presented by the author was one of the most popular lessons of the course. In subsequent teacher-student conferences, the "Quiz Show" was most often cited as a favorite. Furthermore, in immediately following lessons, the students could be heard to say more ers and erms along with other stalling expressions and sounded more

fluent overall. Unfortunately, the author did not reinforce the behavior so most gains were temporary. Yet, even six months later, a handful of students still practice good stalling technique and the author has noticed that these students appear to communicate more fluently than their classmates of approximately equal ability.

## 5.5 Conclusions

In this chapter the author has attempted to compensate for the lack of attention given to FPs in ELT by integrating the results of the present study with previous research in order to make recommendations for the integration of FPs in ELT. Suggestions were made with respect to the development of both listening and speaking skill. The theoretical framework and practical suggestions provided here can form a useful foundation on which ELT professionals (both instructional material developers and teachers) may base decisions in the implementation of FPs in ELT lessons. This chapter also provides a basis for further research on the role of FPs in ELT. CHAPTER 6 considers these research implications in further detail.

# Chapter 6

## CONCLUSIONS

From a systematic analysis of a small corpus (8,165 words) of spontaneous speech, the present study has drawn several conclusions regarding the cognitive conditions and communicative functions of FPs with respect to other types of hesitation and with respect to different speakers. The present chapter summarizes these conclusions and offers suggestions for further research.

### 6.1 Summary of Results

In this corpus, FPs appeared to be used most often as stalling and filling acts during which the subjects prepared their following utterance, whether it was merely the next word, the following tone unit, or an entire span of discourse. Analyses of FPs in this corpus largely support previous descriptions and suggest no major revision of them. One outstanding discrepancy, though, appeared with respect to the correlation of different FP types across the various themes. A very low correlation between open and closed UFPs suggest that these two operate independently. This may have implications for hesitation phenomena researchers as previous research has normally combined all such unlexicalized vocalizations—whether short or long, open or closed—into one group.

The author's experience during data-gathering and transcription brought attention to the concept of 'filtering' of FPs and other hesitation phenomena by both speaker and listener. Although this was not initially an explicit aim of the study, it was tentatively concluded that speakers use FPs to increase their apparent fluency and depend on the filtering phenomenon in themselves and in listeners to achieve this effect.

Evidence from the corpus also supports the hypothesis that FPs are used by speakers to mitigate undesirable effects of the message, in particular when one is being assertive.

Finally, results of the current study were integrated with previous research to produce specific theoretical and practical recommendations for the use of FPs in ELT. FPs may be integrated into existing syllabi implicitly—that is, they need not be an explicit focus of language lessons. FPs may support the development of listening comprehension by allowing learners to take advantage of a speaker's pause time to process and predict input. They may

also support the development of speaking ability by making learners appear more fluent—that is, to sound more like native speakers. These suggestions were illustrated by describing a lesson used by the author and fashioned after a quiz game: in responding to questions, students were expected to use FPs and other fillers to avoid silence during their thinking time and thus to score points for fluent responses. Highly positive affective responses and improvements in apparent fluency by several students support the potential effectiveness of this approach.

## 6.2 Directions for Future Research

Results of the present study suggest several directions for future research. Perhaps of greatest importance to the study of hesitation phenomena is the possibility that *er* and *erm* are independent phenomena. Since pause researchers have almost universally not distinguished between the two, it would be interesting in future research to test the validity of treating them as mutually independent.

Although the explicit focus of this study was the nature and function of FPs, other hesitation phenomena were included for comparative purposes. The various forms of hesitation (UFPs, LFPs, lengthenings, and repairs) in the corpus often appear to serve the same basic psycholinguistic purpose (stalling during processing). However, statistical analysis did not clarify their interrelationships. Most correlations between the hesitation types were not statistically significant while those that were significant did not provide conclusive insights into their relationships. Research using a larger corpus would be needed to confirm or refute hypothesized relationships.

Filtering of hesitation phenomena is worthy of greater study. The author has suggested that some speakers may employ FPs and other hesitations to increase their apparent fluency by capitalizing on the listener's filtering. This hypothesis needs to be confirmed or refuted.

In the corpus, each subject was found to exhibit idiosyncratic hesitation techniques. Deeper study of the type and range of such techniques as used by native speakers may be useful to ELT materials writers who wish to incorporate a variety of hesitation patterns in authentic recordings for listening comprehension.

Although the usefulness of FPs in reducing the impact of an unfavorable response (as in a dispreferred response in an adjacency pair) is well documented; other mitigating uses of FPs are not. Evidence from the present study suggests that mitigating assertiveness embodies one such use. Further studies are necessary to clarify relationships between FPs and mitigation.

Finally, with respect to the pedagogical recommendations made in CHAPTER 5, the effectiveness of various ways of integrating FPs in ELT syllabi remains to be field-tested.

### 6.3 Final Words

The author hopes that this study contributes to a greater understanding of the cognitive function and communicative purposes of filled pauses in spontaneous speech by its confirmation of past research and by suggestions for continuing study. Furthermore, the pedagogical recommendations for the integration of FPs in ELT should redress the absence of such recommendations in earlier FP research. These suggestions form a foundation to be tested in future language teaching materials and practice. Accordingly, the author hopes that the present study evokes a slight pause in the ELT community during which a focused academic discourse regarding hesitation phenomena will be organized.

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