

# FILLED PAUSES IN SECOND LANGUAGE ORAL PRODUCTION

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*This study examines the use of filled pauses in English and their association with other non-fluent or hesitation phenomena. Participants were five advanced learners of English who had Spanish as their mother tongue. They were asked to tell a story in English and their production was recorded and transcribed in order to measure the length of the pauses, their frequency, their distribution and their association with silent pauses and other hesitation phenomena. The results confirm the role of pauses at the planning and execution levels of language production and their association with other hesitation phenomena and communication strategies. Finally, some pedagogical implications of the study of pauses are discussed.*

## 1. Introduction

The study of pauses in speech production has a long tradition in psycholinguistics and pauses and hesitation phenomena have been analysed as evidence to infer processes in language planning and to signal overloading of the production system in speech production (Golman-Eisler 1968, 1972). Nevertheless, as Garman (1990) observes, speakers need not pause every time they plan and not all pauses can be interpreted as evidence of language planning. Scholars have identified different types of pauses according to formal, functional or contextual criteria. Formal and contextual criteria correspond to objective measures such as pause length or distribution while functional criteria are subject to more subjective interpretations. Goldman-Eisler (1972) identified three functions for pauses: i) a physiological function to allow the speaker to breathe; ii) a cognitive function to allow the speaker to plan his/her speech; and iii) a communicative function,

to help the listener to identify demarcations in the speech stream.

Silent pauses correspond to silent periods between vocalizations and filled pauses to interruptions of speech flow by non-lexical sounds such as *ah*, *mm*, *er*, *erm*, *uh*, etc. Silent pauses have been defined as “-verbal -phonation” and filled pauses as “-verbal +phonation” (Garman 1990).

Goldman-Eisler suggested (1968) that filled pauses reflect affective states such as anxiety and silent pauses correspond to the cognitive difficulty of the task involved. Other researchers (Maclay & Osgood 1959) indicate that filled pauses serve a floor-holding function, that is, they tell the listener that the speaker has more to say. However, the fact that filled pauses are very common in lectures with no possibility of interruption seems to contradict this hypothesis. Garman (1990) indicates that even though filled pauses are taken to be associated with

word retrieval and formulation difficulties, the distinction between filled and silent pauses is artificial because both types tend to occur in the same positions.

Studies on the types and distribution of pauses can shed light on their meaning although the exact functions of pauses in spontaneous speech production are difficult to identify. If pauses and hesitation phenomena occur with high frequency in the spontaneous production of native speakers, they are expected to be more common when linguistic difficulties arise in second language production.

When comparing pauses and hesitation phenomena in first and second language production, Raupach (1983) not only found the different distribution of these phenomena but also that the nature of the hesitation phenomena was different in first and second language performance. Learners have problems to master the language-specific use of pauses and hesitation phenomena and also present different units when planning their discourse. Pauses and hesitation phenomena give evidence of the learner's planning problems but may also function as an appeal for help from the interlocutor (Raupach 1983). Extensive use of pauses and hesitation phenomena has also been associated with negative evaluations of speech performance (Albrechsten, Henriksen & Faerch 1980; Olynik, d'Anglejan & Sankoff 1987).

Although more work on the distribution of pauses in second language production is needed, the limited research in this area seems to indicate that pauses and hesitation phenomena co-occur with other performance features and can act as signal markers of communicative problems. Raupach (1983) found an increase not only in filled pauses but also in other phenomena (repeats, false starts, corrections) immediately before a difficult structure, such as indirect speech.

The study of pauses and hesitation phenomena in communication has also shown that there are

individual differences in frequency and use of different types of pauses (Goldman-Eisler 1968, Raupach 1983).

The role of filled and silent pauses in second language fluency and the limited number of studies in this area motivated the present study. This exploratory study on pauses in oral second language production aims at describing the characteristics and distribution of filled pauses in oral production in English by native speakers of Spanish.

## 2. Method

Participants were five advanced learners of English who were students of English Philology at the University of the Basque Country. They were asked to look at the pictures of the story "Frog, where are you?" (Mayer 1969) and to tell the story in English. Their production was recorded, transcribed and digitalized in order to measure the length of the pauses from signal-spectra and signal-waves. Once the length of the pauses was measured all filled pauses and those silent pauses with a duration of 200 msec or over were coded and analysed. The codification included the length of the pauses, their type (filled and silent), their proximity to silent pauses, their distribution in the sentences, the hesitation markers used in the case of filled pauses ("um", "eh", "ah"), and their association with communication difficulties.

## 3. Results

Although this study mainly focuses on filled pauses, silent pauses were also taken into consideration. The number and percentages of silent and filled pauses as well as the total number of pauses and words for each of the oral productions are given in the following table:

TABLE 1

	Filled pauses		Silent pauses		Total number of pauses	Total number of words
S1	25		129		154	452
S2	67		131		198	540
S3	63		145		208	540
S4	35		104		139	355
S5	34		124		158	513
Total	224	26%	633	73%	857	2.400

The data in table 1 indicate that pauses are a very common phenomenon in oral production; a total of 857 pauses were registered in a corpus of 2,400 words. Even though there were individual differences all subjects present more silent pauses than filled pauses.

The data in the following table indicate the co-occurrence of filled and silent pauses and the fillers used in the case of filled pauses (table 2)

TABLE 2

Filled pauses				
	Next to silent pauses		Filler	
S1	23		eh (25)	
S2	51		eh (41)	ah (26)
S3	53		eh (63)	
S4	34		eh (34)	um (1)
S5	24		eh (26)	em (8)
Total	185	82.5%	eh (189)	84%
			ah (26)	12%
			um (1)	0,5%
			em (8)	3,5%

The data indicate that 82.5% of the filled pauses are next to silent pauses or even preceded and followed by silent pauses. The most common filler used is 'eh' used in 84% of the filled pauses.

In order to analyse the distribution of filled pauses, the pauses were divided into three groups according to their position. Juncture filled pauses are those that are produced as a link between utterances as it can be observed in the following examples:

1. ... and the dog started running #-648 eh #-486  
When he was up in the rock...(S1)

2. He looks a bit angry because he has broken the the tin em #-666 Later on they .... (S5)

The second group corresponds to pauses produced between clauses as in the following examples:

3. Then the the boy gets angry #-330 eh #-698  
because the dog has broken the jar (S4)

4. He is ah eh looking at his little frog #-564 eh  
which is inside a bottle (S2)

The third group includes those pauses produced within clauses:

5. The frog **eh** #-2073 **eh** #-1207 goes out of the vase and then it escapes (S3)

6. And they er the boy find #-509 **eh** #-556 an eagle (S4)

The data in table 3 shows the number and percentages of the different types of pauses according to their distribution.

TABLE 3

	<i>Juncture</i>		<i>Between clauses</i>		<i>Within clauses</i>		<i>Total</i>
S1	11		7		7		25
S2	16		16		35		67
S3	15		3		45		63
S4	9		5		21		35
S5	12		3		19		34
Total	63	28%	34	15%	127	57%	224

The data indicate that most of the pauses are produced within clauses (57%). The most common position for pauses within clauses is between the subject and the verb (35%) as in the following examples:

7. Ah the boy #-334 **eh** #-648 is #-497 ah on the tree (S2)

8. The frog **eh** #-2073 **eh** #-1207 goes out ... (S3)

9. He and the dog **eh** #-648 realize... (S4)

Other pauses within clauses were produced between the verb or object and an adverbial (11%):

10. Ah the boy #-334 **eh** #-648 is #-497 **ah** on the tree (S2).

11. A little boy had a frog #-610 **eh** in a bottle (S1)

12. It's **eh** #-3462 in the evening (S3)

Another common position for pauses within clauses was between the verb and the object (10%):

13. they see **eh** a nest of bees (S3)

14. but he doesn't find er #-514 the frog (S4)

15. So they continue looking for **eh** the frog (S5)

The analysis of the data indicates that filled and silent pauses are associated with the difficulties found by the subjects. Pauses can function as a warning of an upcoming problem and can also be used as a strategy to gain time when selecting lexical items:

16. the dog is ah playing #-296 **with** #-226 **ah** #-296 **ah** #-497 bees (S2)

17. Then the boy is a bit #-960 **eh** #-1023 **eh** #-1474 **um** a bit angry with the owl (S3)

18. and suddenly a #-740 guinea pig appears (S5)

In other cases pauses are used in combination with communication strategies such as repetition, circumlocution or self correction. In examples 19, 20 and 21 the combination of silent pauses, filled pauses and repetition indicates that hesitation

phenomena tend to cluster and shows the use of repetition as another form of time-filling.

19. the frog eh #-2608 is #-734 is happy (S5)

20. both of them go #-356 to #-430 the woods and scream #-755 eh #-1016 eh scream (S5)

21. but he couldn't find #-714 eh #-378 the the frog (S1)

Other examples show the combination of silent pauses, filled pauses and circumlocution. In the following examples the subjects have difficulties to name a specific animal and subjects hesitate before they finish the sentence.

22. the boy find eh #-535 a little animal (S4)

23. where #-800 eh the animal which smells eh #-473 a bit funny (S3)

24. eh #-294 a little animal from from the woods (S2)

Learners also use silent and filled pauses when they have produced a grammatical mistake and want to correct themselves:

25. a pair of frog #-437 eh of frogs... (S2)

26. the boy and the dog #-513 eh wakes #-541 wake up ... (S3)

27. the frog trying to look it #-358 to look for it (S4)

In other cases self-correction takes place at the semantic level and learners reformulate their utterances in association with silent and filled pauses:

28. and #-885 mmm #-1425 there they #-551 they're they seem to be .... (S5)

29. and they er the boy finds ... (S4)

30. they see eh #-1354 a big #-440 eh #-493 a little #-409 place (S5)

In sum, in spite of individual differences all the productions present filled and silent pauses and both types of pauses are associated with other non-fluent or hesitation phenomena when they are located within clauses.

#### 4. Conclusions

Even though the present study is exploratory and it is based on a relatively small corpus some conclusions can be drawn from its results:

a) The present study shows that pauses are extremely frequent in second language oral production. In fact, pauses can be considered an important phenomenon that has not received enough attention in second language acquisition research. Moreover, the importance of pauses is not only due to their frequency but also because they can affect the listener's perception of the speaker's fluency (Albrechsten, Henriksen & Faerch 1980; Olynik, d'Anglejan & Sankoff 1987).

b) Pauses can have different functions and they can be used as linking devices for planning purposes but they can also be indicators of difficulties. The results indicate that most filled pauses are located within clauses. This location is the most likely to correspond to difficulties of the speech task and to affect the speaker's fluency.

c) Our data confirm that hesitation phenomena tend to cluster and that filled pauses are associated with silent pauses and other phenomena such as repetition, circumlocution and self-correction (Rau-pach 1983). These findings confirm the existence of 'pause units' rather than individual pauses when the speaker finds difficulties (Kenny 1996) and also confirm the distribution of pauses as indicators of communicative strategies (Perales & Cenoz 1996).

d) The study of pauses and hesitation phenomena can shed light on the process of second language acquisition because pauses can indicate difficulties in language planification and execution and they can be a cue to infer the psycholinguistic processes taking place in second language production.

e) The study of pauses has important teaching implications. Pauses within sentences can provide a diagnosis of learners' lexical, syntactic or phonological difficulties. Moreover, the study of pauses can raise learners' awareness about fluency and the teaching of appropriate fillers can substitute the common filler 'eh' and improve the learners' strategic competence (Dörnyei & Thurrell 1991).

Only a small proportion of the planning and execution processes involved in second language production are represented by pauses and it is difficult to infer the underlying processes that take place in language production. Nevertheless, the study of pauses in second language production needs more attention for several reasons: their frequency, the association of pauses with speech difficulties and communication strategies and their pedagogical implications.

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