Filled Pauses and Lengthenings in Italian and Spanish Dialogues

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Filled Pauses and Lengthenings are usually considered as belonging to a heterogeneous class of phenomena that characterize human spontaneous speech either suspending or editing its production, thus apparently affecting its "fluency", for this reason, they have been commonly referred to as "disfluencies", see [1] for an overview. However, numerous studies have highlighted the role of such phenomena as flexible and efficient tools at speakers' hands to manage their production [2, 3, 4]. In particular, non-verbal vocalizations and/or nasalizations, i.e., eeh, ehm, mhh, or the lengthening of segmental material may be used to delay the message delivery, thus reducing the temporal pressure due to the simultaneity of online planning, production, and reception processes. On the one hand, they gain valuable time for speakers to manage the online process of speech production; on the other hand, they provide extra time for listeners to process information [4,5]. The frequency and the phonetic realization of these phenomena may vary due to contextual factors and the related cognitive demands [6], the contextually associated functions in discourse [7], individual factors [8], and language-specific features [9,10]. The relevant literature on fillers in Spanish indicates that they are most frequently realized as [eː] [11], whereas in Italian as [əː] or [əmː] [12]. As for lengthening occurrences, in Spanish, they mostly occur on functional words [11], whereas in Italian a rather balanced distribution among open classes (most frequently verbs, nouns, and adverbs) and closed classes (mostly prepositions, conjunctions, and determiners) words was found [13]. This study aims at investigating the common and language-specific uses of filled pauses and lengthenings in two related languages such as Spanish and Italian.

The analysis was conducted on a corpus of 4 task-oriented dialogues amounting to about 50 minutes of speech (25' Italian, 26' Spanish). All dialogues were collected using the same method, i.e., "Spot the difference" [14]. The phenomena were labelled using a multilevel disfluency annotation system for disfluencies' formal identification and the marking of their function in context independently from any formal features (see Schettino et al. 2021). The robustness of this categorization was tested measuring the inter-rater reliability on a subset of the data (Cohen's kappa was 0.92, "high agreement", for the item identification level, and 0.78, "substantial agreement", for the functional level, [15]).

The analysis focuses on Filled Pauses and Lengthenings and considers the following parameters: the segmental composition of the phenomena; their duration; the preceding and following context, i.e., whether there is a fragment of speech or silence. Moreover, for lengthenings, we also consider the lexical category of the elongated word and the position of the phenomenon within such word i.e., initial, medial, or final.

The results concern 405 phenomena: 110 filled pauses and 154 lengthenings in Italian; 31 filled pauses and 110 lengthenings in Spanish. As expected, idiosyncratic behaviours emerge. Beyond individual variability, results show common patterns and language-specific uses of the observed items in the Italian and Spanish dialogues. Common characteristics are the preference for producing final-word lengthenings over filled pauses and the quite even distribution of lengthenings on both content words and functional words. Differences concern the use and phonetic realization of the phenomena. As compared to Italian data, in Spanish dialogues, filled pauses are significantly less used and the few occurrences are almost exclusively used at clause-breaks preceded by silence. Then, the analysis of the segmental composition confirms that speakers tend to use vowel sounds belonging to their phonological inventory when producing non-verbal vocalizations [10].

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