

SOUND DELETION IN COLLOQUIAL PERSIAN

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ABSTRACT

Among the differences that distinguish colloquial Persian from the formal variety are the deletion and the assimilation of sounds. In this study, I compare formal Persian with colloquial and present the frequency of occurrence and deletion of sounds in colloquial Persian. This study is based on a corpus of 20 minutes of conversation with three native speakers from Tehran. The results show that 6% of sounds are deleted in colloquial Persian. Consonants are more likely to be deleted than vowels. Among consonants, the most frequent are the dentals and their deletion occurs at the end of the syllable, especially in consonant clusters with the same place of articulation: *mast* > *mas* (yogurt), *tchand* > *tchan* (several).

The deletion affects more grammatical words (*baraye* > *bare* « pour ») than lexical ones.

Keywords: deletion, colloquial Persian, formal Persian, grammatical and lexical words, position.

1. INTRODUCTION

Unlike formal standard Persian, colloquial Persian is characterized by deletion and assimilation phenomena. Formal Persian is used in the media (press/TV). On the other hand, colloquial Persian is the everyday language which is used for ordinary, informal or familiar conversation. Nowadays, it is even used in contemporary novels. Phonetic studies on Persian are rare. They are mainly based both on the auditory aspect and on analysing written documents which do not actually provide an adequate source of information on pronunciation. Lazard [4] and Provasi [8], among others, wrote about deletion and the absence of the phoneme /ʔ/ in colloquial Persian. According to Pisowicz [7] common words are more affected by deletion than those rarely used. Yet, none of these scholars have conducted any experimental research about the deletion and assimilation phenomena. The present study is about auditory and acoustic aspects (a spectrographic analysis) of several

dialogues. It studies the deletion of sounds according to the type of the word whether lexical or grammatical and the position of the phoneme in the word or in the syllable. Grammatical words refer to pronouns, articles, conjunctions, auxiliaries, prepositions and particles. Lexical words refer to nouns, adjectives, adverbs, full verbs.

Three questions will be studied in this paper:

1. What are the frequencies of vowels and consonants and their percentage of deletion?
2. In what position does phoneme deletion tend to take place?
3. What is the category of the word (grammatical or lexical) that is more affected by deletion?

2. METHOD AND ANALYSIS

2.1. Speakers

Three native Persian speakers from Tehran who hold high social positions participated in this study. Two women aged 32 and 37 and a 42 year old man.

2.2. Corpus and classification criterion

The data are based on individual conversations that lasted 20 minutes. Since I have close relations with each participant, the degree of the speaker's familiarity with this interlocutors resulted in informal productions. Because I used questions to elicit their speech samples, I call these samples "controlled dialogue". I recorded all my interviews. My corpus was classified by using the "Sound Forge" and "Win Snoori" programs. The

classification of phonemes concerns the visual and the perceived ones on the spectrogram. Visual analysis means missing stop bursts, lack of presence of friction.... The corpus was analysed in detail and transcribed orthographically and phonetically. Then I compared every word in the corpus to the standard form included in the dictionary (SadriAfshar and al. [9]) and I noted the deletion of sounds.

3. FREQUENCY OF SOUNDS AND THEIR DELETION

Tables 1 and 2 illustrate the total number of consonants and vowels and the percentage of occurrence and deletion of each type. Among the 7138 phonemes in the corpus, 4038 (56.57%) are consonants of which a half (50% of the consonants) are dentals ([t, d, n, r, s, z, l]). These results are compared to those of Zipf (1965) on the high frequency of dentals in numerous languages. /z/ is the only consonant that doesn't occur in the data because in colloquial Persian, it becomes [j] by assimilation. Even, in the Persian dictionaries, the number of words starting with /z/ is very small in the formal varieties.

There are 46 diphthongs [ey, ow] (0.64% of the total of phonemes). Table 2 shows the number of vowels that is 3054 (42.78% of the phonemes). [e] and [a] are the most frequent vowels. In colloquial Persian, the high frequency of the /e/ is partially due to the verb "ast"> "e" (is): formal Persian "gol ast"> colloquial Persian "gol-e" (flower is). So it's normal that the frequency of [e] is not the same as in the formal Persian because of the change in the form of assimilation and deletion.

The results show that 6.45% of the phonemes (433 cases) are deleted: 81% (351) concerned consonants, 12.50% (54) vowels. So, 1.8% of the vowels and 8.7% of the consonants are deleted. There are 60.87% diphthongs in the data that change in monophthong.

About the deletion of consonants according to the place of articulation: the laryngeals ([h, ʔ]) have 151 (82% of laryngeal consonants). The latter are the least frequent consonants in the data but they are deleted more. /r/ is only in Arabic loan words and /h/ is in both Arabic and Persian words.

The deletion of velars and postvelars ([k, g, q]) is 32 (7.44%), the palatal ([j]) is 11 (6.58%) and the dentals ([t, d, n, r, s, l]) is 146 (7.22% of the dental). The labiodental [v] includes 9 cases (5.39%) and the labial ([b, m]) are the only 2 cases of deletion (0.26% of the labial consonants).

The postalveolar /tʃ/, /dʒ/, /tʃ/ as well as the phonemes /p/, /z/, /x/, /f/ and /o/ were never deleted (See Table 1 and 2).

Table 1: Number of consonants and percentage of deletion according to the place of articulation. (phonemes /j/, /tʃ/, /dʒ/, /z/, /x/, /f/ don't have any deletion).

	Cons =4038	% of occur.	deletion= 351	% of deletion =8.7
Laryngeal ʔ h	184	4.56	151	82
Velar + postvelars k g x ɣ	430	10.56	32	7.44
Palatal j	167	4.13	10	6.58
Postalveo. ʃ ʒ tʃ dʒ	290	7.18	0	0
Dental t d n s z r l	2023	50	146	7.22
Labiodent f v	167	4.13	9	5.39
Labial P b m	777	19.25	2	0.26

Table 2: Number of vowels in the corpus and percentage of deletion.

	Vowel = 3054	% of occur.	deletion= 54	% of deletion =1.8
i	534	17.5	7	1.31
e	798	26.1	8	1
a	767	25.1	29	3.78
u	228	7.5	2	0.88
o	260	8.5	0	0
ə	467	15.3	8	1.71

In this study, I will not analyse the diphthongs and deletion of laryngeals (/h / and /ʔ/) in Arabic loan words, because their deletion sometimes triggers compensatory lengthening in formal Persian (Assadi [1] and Darzi [2]) and produce a phonological difference between formal and colloquial Persian.

However, I will study the phonetic deletion of sound (/h/ in Persian words is included) according to the position and the class of word.

4. DELETION OF PHONEMES ACCORDING TO THEIR POSITION

In general, in many languages, the final position is often considered as weak and unstable because the articulatory effort decreases. On the contrary, the accentuated or initial position is associated with an increased tension of the articulators. Here are the main cases of deletion observed in different positions.

4.1. At the end of words or syllables

50.40% of the deletion occur at the end of words or syllables. They mainly occur in the following cases:

A- Simplification of consonant clusters having the same place of articulation

In general, for the production of phoneme sequences, we try to get a maximum of effect with a minimum of effort. So, some sounds can be assimilated or deleted. In the final position, the deletion of phonemes occurs mainly in the case of consonant clusters that share the same place of articulation. Several examples concern the deletion of /t/ at the end of the syllable preceded by /s/ ([mast]> [mas], yogurt) and /d/ preceded by /n/: ([mikanand]> [mikanan] "they are uprooting"). In the first example, /t/ and /s / and, in the second /n/ and /d/ have the same place of articulation (both are dentals).

B- Nasalisation of vowels preceded by the nasal consonants

Passy [6] considers nasalisation as a kind of assimilation. The frequent examples of nasalisation in Persian concern words like: [man]>[mã] (men), [bolandgu] (loudspeaker), [dastband] (bracelet). In two later examples, there are two assimilations:

- [n] and [d] having the same place of articulation are assimilated, therefore: [bolandgu]> [bolangu].

- the vowel preceded by the nasal is nasalized: [bolangu]> [bolãgu]. The mechanism of nasalisation is that the tongue doesn't rise completely to the palate, but the necessary nasalisation is present to produce a nasal consonant. Some of the air escapes through the nose.

Most of these modifications are due to the principle of the least effort (Martinet [5], Kohler [3], Vaissière [10]).

4.2. At the beginning and at the middle of a word or a syllable

Contrary to consonants, the deletion of vowels rarely takes place in final position (11.5%), but it especially is retained in the middle and at the beginning of a word. We can even observe the disappearance of a syllable at the middle of the word: [bayad]> [bad] (it is necessary). However, the mentioned cases concern mainly the grammatical words that we are going to explain now.

5. DELETION OF CONSONANTS AND VOWELS ACCORDING TO GRAMMATICAL OR LEXICAL CLASS

The results show that deletion often occurs in grammatical words rather than lexical ones. The more frequent cases of deletion in grammatical words are the following:

- Among the 31 /k/ deletions, 30 appear in the indefinite article: "yek" > "ye"(a).

- The deletion of /v/ (9 cases out of 9) is in the word "va">"o" (and) (the conjunction of the coordination).

- As far as the deletion of /r/ is concerned, 37 cases out of 38 show that it occurs in the particle "râ".

- 37 cases of deletion of /h/ out of 41 occur in plural morpheme "hâ"> "â". The deletion essentially occurs at the word boundary.

Among the 314 cases of deletion (diphthongs, /ʔ/ and /h/ in Arabic loan words are excluded), 232 (74%) are grammatical words (See Table 3) and 82 (26%) lexical words (fekr> fek "thought").

17% of the latter include words whose sense doesn't have any importance in the sentence as the word: "ya'ni" (I mean). The results indicate a heterogeneity between the deletion of phonemes in the two types of words.

Table 3: Deletion of consonants and vowels in the grammatical and lexical words (cons= consonant, V= vowel).

	Cons + V	%
Grammatical words	232	74
Lexical words	82	26
Total	314	100

6. CONCLUSION

The deletion of phonemes depends particularly on the class of words and on the position of the sound within the word. The grammatical words show more cases of deletion because, in general, they are more frequent and predictable by the listeners. Their absence doesn't cause any difficulty in understanding the sentence. Consequently, they are deleted in telegrams. The deletion of sound in the grammatical words is considered a universal phenomenon.

The deletion of consonants occurs at the end of a word or a syllable because in this position, the consonants are weakly realised. The initial position presents more information than the final position, because it has major importance in accessing the lexicon. So, deletion in this position concerns principally the grammatical words.

These results shed light on some universal aspects of deletion based on the articulatory gestures and the principle of minimum effort. These aspects are useful for teaching the Persian language and they can contribute to the study of experimental and multilingual data in spontaneous speech.

The frequency and the deletion of phonemes in spoken Persian warrant further study and investigation with a larger corpus.

7. REFERENCES

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