Farideh Okati, University of Sistan and Baluchestan, Iran f okati4@yahoo.com

Abbas Ali Ahangar, University of Sistan and Baluchestan, Iran aaliahangar@yahoo.com

Carina Jahani, Uppsala University, Sweden carina.jahani@lingfil.uu.se

Abstract

The purpose of this article is to determine the phonemic status of [h] and [?] in the Sistani dialect of Miyankangi. Auditory tests applied to the relevant data show that [?] occurs mainly in word-initial position, where it stands in free variation with Ø. The only place where [h] is heard is in Arabic and Persian loanwords, and only in the pronunciation of some speakers who are educated and/or live in urban centres, where inhabitants are in closer touch with Persian than in rural areas. The sound [h] also occurs in the pronunciation of some Arabic loanwords where it replaces the glottal plosive, particularly in word medial, intervocalic position. The investigation shows that neither [?] nor [h] have phonemic status in the Sistani dialect of Miyankangi at present, but that more intense contact with Persian may change this state in the future, particularly for [h].

Keywords: [h], [?], phonemic value, Sistani dialect of Miyankangi, Persian, loanwords.

1. Introduction

Sistani is spoken in the Sistan region of Afghanistan, in southern Turkmenistan, and in the southeast of Iran. The Iranian Sistani dialect is spoken by 90% of a total of about 350 000 inhabitants in the Sistan region of the province of Sistan and Baluchestan.¹ It is also spoken in other parts of Iran such as Sarakhs in Khorasan, Zahedan, the Golestan province, and Pakistani Balochistan (Dusti, 1380: 16).

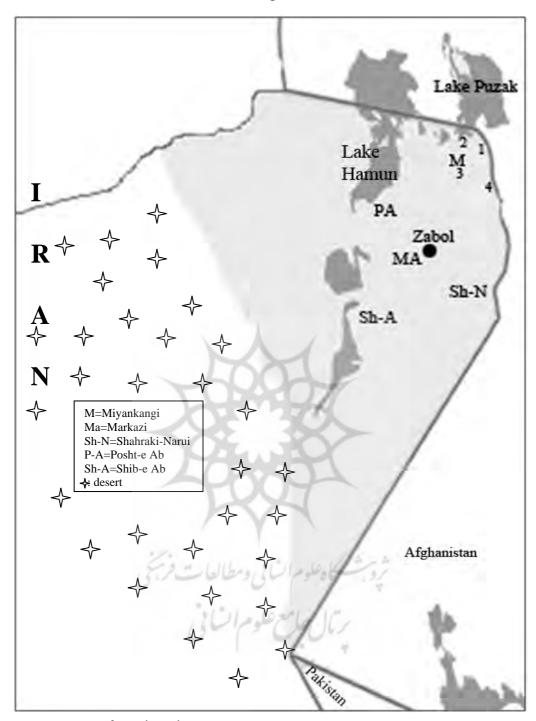


Map 1: Map of Iran²

^{*} We would like to thank Ms. Gunilla Andersson and Dr. Pétur Helgason for their cooperation and comments on the spectrograms in this article.

¹ http://www.sci.org.ir.

² http://english.freemap.jp/asia e/iran.html



Map 2: Map of Iranian Sistan

The Sistani dialect of Miyankangi (M on Map 2), hereafter abbreviated SM, seems not to be exactly the same as other variants of Sistani spoken in the surrounding regions, because it is less influenced by Standard Persian.³ The variant of Sistani spoken in the central region (MA=Markazi on Map 2), for example, is under heavier influence from Standard Persian. The main reason for this is that Zabol, the administrative and educational centre of Sistan, is located in this region. The distance of Miyankangi from Zabol, on the other hand, is a factor that until quite recently has kept this dialect relatively free of influence from Standard Persian.

The purpose of this article is to determine the phonemic status of [h] and [?] in SM. The corpus for the investigation was gathered by elicitation and by interviews with 7 male and 4 female speakers aged between 25 and 82. It consists of free conversations and life stories. The data was recorded by an MP3 player or directly into a computer.

The article consists of an introduction, a summary of the status of [h] and [?] in some other languages as well as in other dialect variants of Sistani, an analysis of the position of these sounds in SM, and a conclusion.

2. The status of [h] and [?] in adjacent languages and in other dialect variants of Sistani

The sounds [h] and [?] exist as phonemes in Standard Persian of Iran. In a word with an initial vowel, Samare (1364: 128-129) gives [?] phonemic status and thus establishes an obligatory syllable pattern of CV(C(C)). Jahani (2005), on the other hand, argues that [?] is non-phonemic in this position since there is no contrast between [?] and \emptyset in words with an initial vowel unless the word is pronounced after a pause, in which case the glottal plosive is compulsory.

According to Windfuhr (1997: 683), the phonemes [h] and [?] are unchanged

³ Sistani can, of course, be regarded as a dialect of Standard Persian, which also belongs to the Southwestern group of Iranian languages (Windfuhr 1989: 248).

initially (*har* 'each', *?af'tab* 'sunshine'⁴), pronounced "fleetingly" in intervocalic position (*nah'ar* 'lunch', *sa'?at* 'clock'), and lost postvocalically before a consonant, often resulting in compensatory lengthening (*fahr/fa:r* 'city', *fe?r/fe:r* 'poem'). He (*ibid.*) believes that "the glottal stop is the result of the confluence of the non-phonemic vocalic onset in the Persian component, and of both 'eyn and hamze in the Arabic loan component", i.e. of the Arabic pharyngeal fricative \(\frac{1}{2} \) and glottal plosive \(\frac{1}{2} \).

In Dari, h is generally omitted, but "depending on the dialect of the speaker or the area of the country from which he comes, the sound may or may not be heard" (Glassman 1971: 24). Glassman does not include a glottal plosive in his description of consonants in Dari.

For Balochi *h* is normally included as a phoneme (see e.g. Jahani 2001: 60), but some dialects lack it totally, e.g. those spoken in Turkmenistan (Axenov 2006: 35). In the Balochi of Afghanistan, *h* is absent in word initial position and also unstable in other positions. Sometimes it is pronounced in the place of a glottal plosive in Arabic loanwords (Buddruss 1988: 44). It is likewise weak or absent in the pronunciation of many speakers of Karachi Balochi (Farrell 2003: 177). A non-etymological *h* appears in some words in Southern Balochi (see e.g. Elfenbein 1990: XI, XII, XIV) e.g.: *hasp* 'horse' *hendger* 'fig'. However, the phonemic status of *h* in Balochi needs further study.

For the Sistani dialect, Weryho (1962: 278) points out that in the region of Posht-e Ab in Iranian Sistan [h] is always dropped at the beginning of a word such as: $ham'mal \rightarrow a:m'mal$ 'porter', $haz'rat \rightarrow az'rat$ 'sir', and often in the middle such as: $mehra'bo \rightarrow me:ra'bo$ 'kind'. [h] dropping usually causes compensatory vowel lengthening. Gryunberg (1963: 79) writes that consonants in the Sistani dialect of Sarakhs in Turkmenistan show no considerable differences with those of Persian. Lazard (1974: 65) does not include [h] and [?] on the phonemic chart of the Sistani dialect spoken in the town of Zabol in

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⁴ However, elsewhere in his article, Windfuhr does not insert a glottal plosive in words with an initial vowel.

Iranian Sistan. The glottal plosive [?] but not the glottal fricative [h] is recognized as a phoneme by Omrani (1375) in the dialect spoken in the town of Zabol and by Ahangar (1382) in the dialect spoken in the region of Shib-e Ab (Sekuhe Village) in Iranian Sistan.

3. The status of [h] and [?] in SM

The sounds under investigation, [h] and [?], occur potentially in loanwords from Arabic via Persian (both sounds) and directly from Persian (only [h]). With the help of auditory tests of the data and the analysis of spectrograms of certain words, certain conclusions can be drawn about the two sounds [h] and [?] in SM. Figures 1-14 consist of spectrograms showing the presence or absence of the glottal plosive [?] and the glottal fricative [h] in some words in SM.

A. The status of [h]

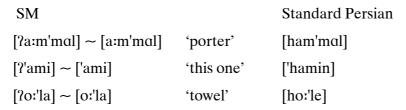
The analysis of the data shows that:

- 1. There is no phoneme /h/ in the speech of most native speakers of SM. It is occasionally pronounced by educated or urban speakers: this must be regarded as influence from Standard Persian.
- 2. From Fig. 2-4 below, it can also be observed that compensatory lengthening of the vowel which follows the omitted [h] sometimes occurs.

Fig. 1 shows the pronunciation of the Arabic loanword [ham'mal] by a speaker of Standard Persian. The [h] is placed under the waves between the two lines in the spectrogram which represent this sound. Similar lines are used in other figures to highlight the relevant parts of respective spectrograms. In Fig. 2, the spectrogram for the same word pronounced by a speaker of SM is shown.

Fig. 2 shows that when the [h] in initial position in this word is not pronounced, a glottal stop [?] may appear. This [?] occurs in free variation with Ø in word initial position, as shown by Fig. 3 and 4, where there is neither a glottal plosive nor a glottal fricative in word initial position. Fig. 5 shows an utterance by a speaker of Standard Persian containing an initial [h] (compare

with Fig. 4).



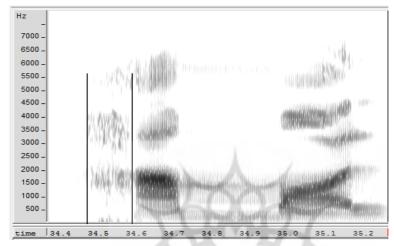


Fig. 1 [h] [ham'mal] 'porter' (Persian)

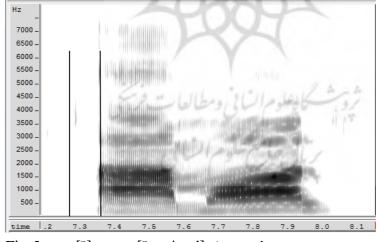


Fig. 2 [?] [?a:m'mal] 'porter'

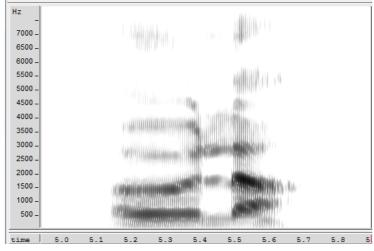


Fig. 3 [o:'la] 'towel'

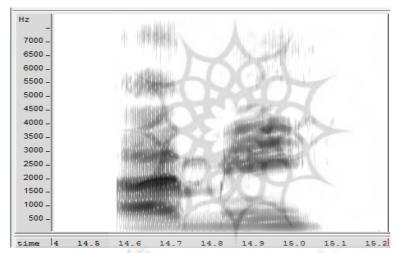


Fig. 4 ['ami] 'this one'

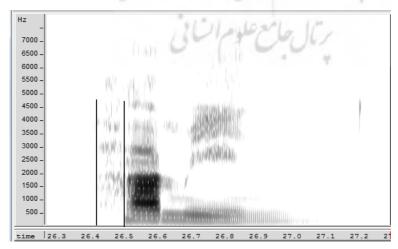
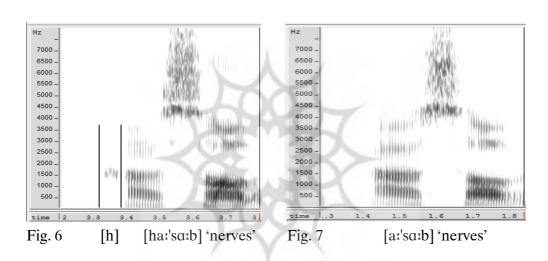


Fig. 5 [h] ['hamin] 'this one' (Persian)

B. The status of [?]

The analysis of the data shows that:

1. [?] occurs mainly in initial position before a vowel (vocalic onset), a function that [?] also has in Persian.⁵ An initial vowel can also be pronounced with a very slight [h] (or voiceless vowel), interestingly enough only if the word genuinely begins with a vowel, and never when an [h] has been deleted (see Fig. 6.) The spectrogram of the word [aːˈsɑːb] 'nerves' in Fig. 7, which is pronounced without an initial [h], is to be compared with [haːˈsɑːb] in Fig. 6. These two pronunciations occur in free variation.



In the spectrograms below the [?] in the initial position of some words is present (Fig. 8 and 9⁶), but in some words it is barely perceptible. It is in its lenis or weak form, and this feature could be regarded as initial glottalization⁷ (Fig. 11 and 12). In Fig. 13 the glottal plosive is totally absent.

⁵ Jahani (2005: 85) holds that in Persian the glottal plosive is always pronounced before a vowel in "utterance initial position after a pause".

⁶ In this word it replaces [h]; see Fig. 10 for Standard Persian pronunciation.

⁷ Erik Anonby (oral communication). We would like to thank him for his comments on the spectrograms.

SM	Standard Persian

 $[?a'sa:n] \sim [a'sa:n] \qquad \text{`Hasan'} \qquad [ha'san]$ $[?a:'mu] \sim [a:'mu] \qquad \text{`uncle'} \qquad [(?)a:'mu]$ $[?a'ja] \sim [a'ja] \qquad \text{`bashfulness'} \qquad [ha'ja]$

 $[?a:'sa:b] \sim [a:'sa:b] \sim [ha:'sa:b] \quad \text{`nerves'} \qquad \qquad [(?)a:'sab] \sim [(?)a?'sab]$

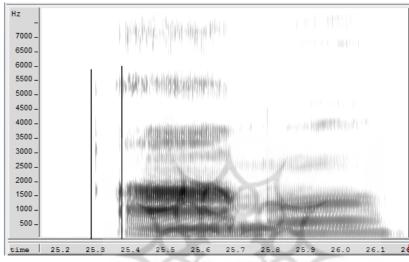


Fig. 8 [?] [?aː'mʉ] 'uncle'

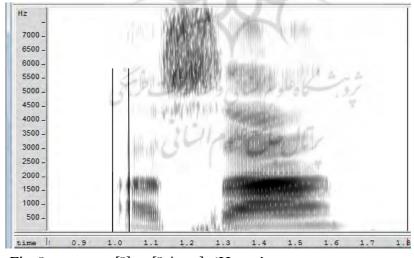


Fig. 9 [?] [?a'sa:n] 'Hasan'

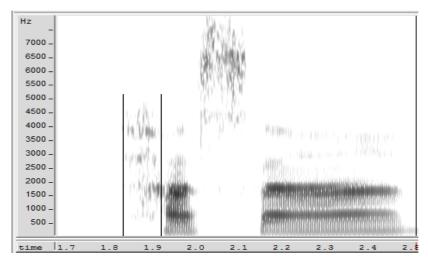


Fig. 10 [ha'san] 'Hasan' (Persian)

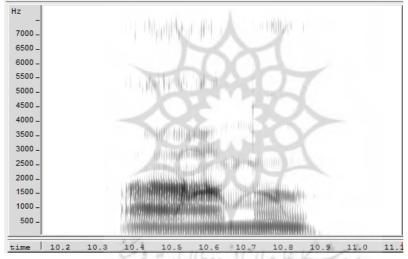


Fig. 11 [a:'mu] 'uncle'

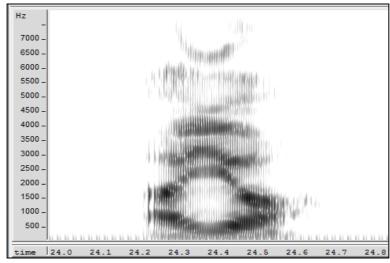
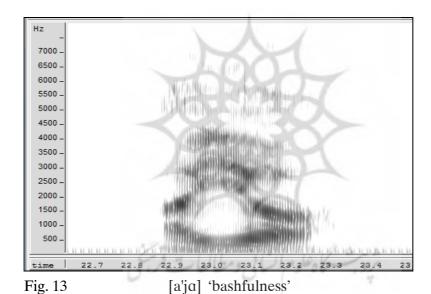


Fig. 12 [a'ja] 'bashfulness'



2. In word final position [?] is not pronounced. Compensatory lengthening of the consonant preceding the omitted [?] may occur before a clitic. Also, compensatory lengthening of a preceding vowel is common.

Fig. 14, 15, and 16 show omission of [?] in word final position, with compensatory lengthening of the preceding vowel in Fig. 14. Fig. 17 shows that weak compensatory lengthening of the final consonant occurs before the *ezafe* (=e).

SM		Standard Persian
[∫aːm]	'candle'	[∫a:m] ~ [∫am?]
[∫oˈrʉ]	'beginning'	$[\int o'ru] \sim [\int o'ru?]$
$[vaz] \sim [vazz]$	'situation'	$[va:z] \sim [vaz?]$

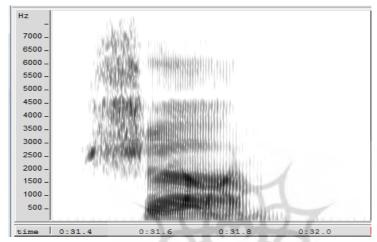


Fig. 14 [ʃaːm] 'candle'

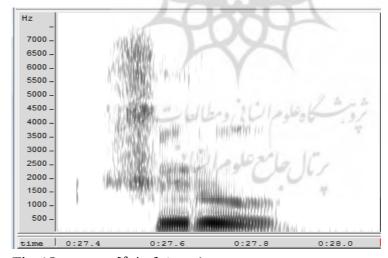


Fig. 15 [ʃoˈrʉ] 'start'

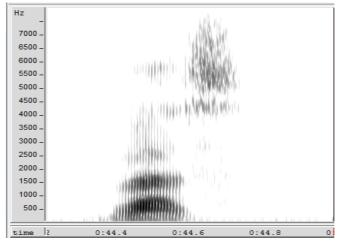


Fig. 16 [vaz] 'condition'

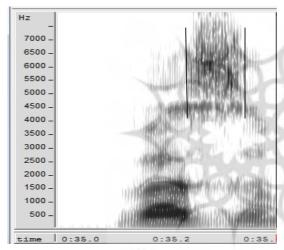


Fig. 17 ['vazz=e] 'condition of' [zz]

3. In word medial position (both onset and coda) [?] is omitted or pronounced weakly (in lenis form). Sometimes an [h] takes the place of the omitted [?]. There is a stronger tendency to retain the [?] or insert an [h] in postconsonantal position, where its absence would change the place of the syllable break. Insertion of [h] is the dominant strategy, and retention of [?] is mainly limited to younger educated speakers. Lengthening of the adjacent vowel may occur.

SM		Standard Persian
$[sa:'at] \sim [sa:'hat]$	'clock'	$[sa:'at] \sim [sa:'?at]$
[taːˈkid] ~ [tahˈkid]	'emphasize'	[taːˈkid] ~ [taʔˈkid]
$[so'ra:t] \sim [sor'ha:t]$	'speed'	[sor'?a:t]
$[qor'ha:n] \sim [qor'la:n] \sim [qo'ra:n]$	'Quran'	[qorˈʔɑːn]
[ʤomˈha] ~ [ʤomˈʔa]	'Friday'	[ʤom'ʔe]
[ma:l'lem] ~ [maha:l'lem]	'teacher'	[moal'lem] ~ [mo?al'lem]

Fig. 18, 20, and 21 show omission of medial [?]. In Fig. 19 there is a weak glottal plosive in word medial position (in free variation with the pronunciation in Fig. 20). Fig. 22 represents Standard Persian pronunciation of word medial [?], to be compared with Fig. 21 and 23, uttered by an SM speaker.

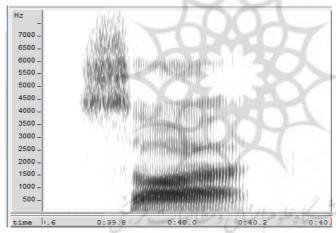


Fig. 18 [sa:'at] 'clock'

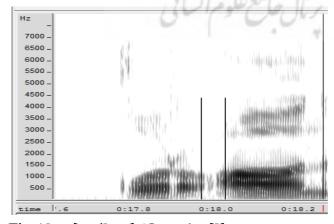


Fig. 19 [qor'?a:n] 'Quran' [?]

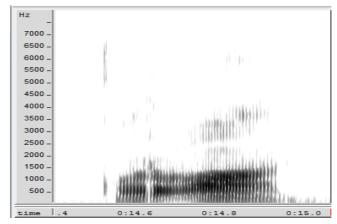


Fig. 20 [qo'ra:n] 'Quran'

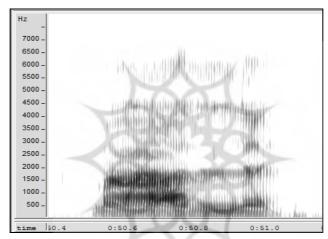


Fig. 21 [ma:l'lem] 'teacher'

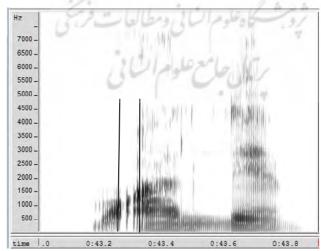


Fig. 22 [?] [mo?al'lem] 'teacher' (Persian)

Fig. 23 and 24 represent the spectrograms of words [maha:l'lem] and [sor'ha:t].

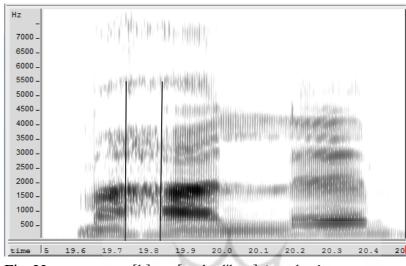
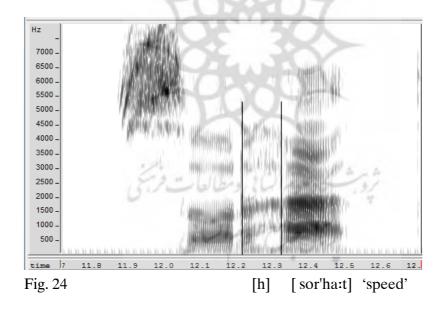


Fig. 23 [h] [maha:l'lem] 'teacher'



4. Conclusion

In this article, the status of glottal fricative [h] and glottal stop [?] was studied in various syllable positions in the Sistani dialect of Miyankangi. Auditory tests of the data gathered from the speech of male and female language consultants

and the analysis of spectrograms allow us to draw the following conclusions about the status of these two sounds in this dialect:

The only places in which a [h] sound is heard are:

- a) under the influence of Standard Persian in Persian words containing an [h] sound in the pronunciation of some speakers who are educated and/or lived in urban centres.
- b) as a non-phonemic feature replacing the glottal plosive in a very limited number of words containing a medial [?] or [s] in Arabic.⁸

As a result, there is at present no /h/ phoneme in the speech of the majority of speakers of SM. On the other hand, [h] may acquire a phonemic status in the future, if more and more educated speakers start to pronounce it.

[?] occurs mainly in word initial position and in free variation with \emptyset , and it can in this position be regarded as a non-phonemic feature of vocalic onset. In word-medial position [?] may also acquire a phonemic status in the future if more and more speakers retain it (particularly in postconsonantal position where its omission would cause a change in the position of the syllable break).

The picture that emerges is very similar to that of Dari, Balochi of Afghanistan and the other dialects of Sistani described above.

References

A1 / \(\bar{A} 1

Ahangar (Āhangar, 'Abbās 'Alī) (1382). "Touṣīf-e dastgāh-e vājī-ye gūyeš-e Sīstānī", in *Gūyeš-šenāsī*, *Farhangestān-e zabān va adab-e fārsī* 1:1, pp. 4-31. Axenov, Serge (2006). *The Balochi language of Turkmenistan, A corpus-based grammatical description*, Acta Universitatis Upsaliensis, Studia Iranica

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Upsaliensia10, Uppsala: Uppsala University.

⁸ This [?] or [?] may be pronounced as a glottal plosive also in Persian, but often causes lengthening of a preceding vowel if it occurs in postvocalic position (see Jahani 2005).

- Buddruss, Georg (1988). Aus dem Leben eines jungen Balutschen, von ihm selbst erzählt, Stuttgart: Steiner.
- Dusti (Dūstī, Moḥammad) (1380). *Barrasi-ye touṣīfī-ye sāxtvaji, taṣrīfī va ešteqāqī-ye važe dar guyeš-e sīstānī-ye adīmī* (MA Thesis), Iran: Shiraz University.
- Elfenbein, Josef H. (1990). *An Anthology of Classical and Modern Balochi Literature*, Glossary, Wiesbaden: Otto Harrassowitz, 2 vol.
- Farrell, Tim (2003), "Linguistic Influences on the Balochi Spoken in Karachi", in Jahani, Carina, and Korn, Agnes (eds.), *The Baloch and Their Neighbours, Ethnic and Linguistic Contact in Balochistan in Historical and Modern Times*, Wiesbaden: Reichert Verlag, pp. 169-210.
- Glassman, Eugene H. (1971²). *Conversational Dari*, Kabul: International Afghan Mission.
- Gryunberg, Aleksandr L. (1963). "Seistanskiy Dialekt v Seraxse", in *Kratkie Soobščeniya Instituta Narodov Azii* 67: Iranskaya Filologiya, pp. 76-86.
- Haghshenas (Hagqšenās, 'Alī Mohammad) (1384). Āvāšenāsī, Tehran: Āgāh.
- Jahani, Carina (2001). "Balochi", in Garry, Jane, and Rubino, Carl (eds.), Facts about the World's languages: An Encyclopedia of the World's Major Languages, Past and Present, New York and Dublin: The H. W. Wilson Company.
- Jahani, Carina (2005). "The Glottal Plosive; A Phoneme in Spoken Modern Persian or Not?", in Csató, Éva Á., Isaksson, Bo, and Jahani, Carina (eds.), Linguistic Convergence and Areal Diffusion, Case Studies from Iranian, Semitic and Turkic, London and New York: Routledge, pp. 79-96.
- Lazard, Gilbert (1974). "Morphologie du verbe dans le parler persan du Sistan", in *Studia Iranica* 3, pp. 65-85.
- Omrani ('Omrānī, Ġolāmrezā) (1375). "Touṣif-e vājī-ye gūyeš-e Sīstān (ḥouze-ye markazī-ye šahr-e Zābol)", in *Majalle-ye zabānšenāsī* 13:1-2, pp. 70-91.
- Weryho, Jan W. (1962). "Sistani-Persian Folklore", in *Indo-Iranian Journal* 5, pp. 276-307.

Windfuhr, Gernot L. (1989). "Persian", in Bernard Comrie (ed.), *The World's Major Languages*, Routledge, London, pp. 23-546.

Windfuhr, Gernot L. (1997). "Persian Phonology", in Kaye, Alan S. (ed.), *Phonologies of Asia and Africa, 2.* Winona Lake, Indiana: Eisenbrauns, pp. 675-689.

