Phonetic Changes in Velayati (Provincial) Dialect and Comparison with the Jewish Dialect of Isfahan

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ABSTRACT ─ Isfahan Jewish and velayati dialects are Iran's central dialects. Some linguists have claimed these two dialects as one group and sub- branches of southwest dialects and as central dialects of Iran. In this paper, we have studied on phonetic characteristics of two mentioned dialects. Diphthong, syllable structure, stress, consonant clusters, morphophonemic processes and mediator voices are studied as phonological of two dialects and the similarities and differences between them have been mentioned. Mentioned samples for Isfahan Jewish dialect are extracted from a book written by Dr. Iran Kalbassi is and provincial(velayati) dialect samples are recorded from several speakers. So, this paper aimed to register some phonetic characteristics of provincial dialect. Some voices of two dialects don't exist in Farsi language; then, samples of two dialects are written in international transcription alphabet and their Farsi equivalents are provided with standard Farsi for readers' easiness.
KEYWORDS: phonology, consistency clusters, morphophonemic processes, Isfahan Jewish dialect, provincial dialect

Introduction

Dialect is a type of language that is used by a group of people and it is different from other type of that language which is used by another speakers of that language in terms of vocabulary, grammar, phonetic- phonological system and pronunciation; the presence of geographical, political, economic or social barriers among speakers of a language leads to different dialects. Each language has many dialects and accents and each dialect has different accents. (Hajiyani, 2009: 22) According to Pierre Lecoq division, Jewish Dialect of Isfahan is related to southwest dialects branch and Iran's central dialects. (Schmidt, 2004, vol. 2: 517) According to Pierre Lecoq, Jarquyei dialect that is provincial(velayati)dialect is used besides Jewish dialect of Isfahan and is considered as the fourth group of Central Iranian six dialects group (Ismaili, 2011: 18). But, these two dialects are not provided Persian paper of Lecoq and only Jewish dialect is considered as southwestern dialects. (Schmidt, 2004, vol. 2: 528) Garkuye (Jarguye) land is located 45 to 200 miles southeast of Isfahan. This region with extension of 6450 square kilometers has borders with Rodasht parts of Isfahan from north, with Abade city of Fars province from south, with Shahreza from west, with south Barrn parts of Isfahan from Northwest and with Abarghu city of Yazd province from southeast. (Shafi'i Nik Abadi, 1997: 10) In fact, the region's dialect is the ancient dialect of Isfahan, the same dialect that is used in the preface of book on dialects collection: Isfahanian spoke in a dialect that Owhadi Maraghei, the poet of eighth century has written poems and sings in this dialect and some sentences of this dialect are given in some books and cultures (Kia, 1961: 1).

There are similarities between Jewish dialect of Isfahan and provincial dialect; according to Ahmad Tafazoli in a paper entitled
"information about prior accent of Isfahanian", studying a few works on ancient dialect of Isfahan and comparing these works with Jewish dialect of Isfahanian, we can conclude that this accent continues Isfahan old accent. It is possible that this accent is very close to old accent and that is why Jewish minority of Isfahan have retained it (Tafazoli, 2010: 87). In Lecoq paper, it is mentioned that Isfahan old accent has been maintained by Jews (Schmidt, 2004, vol. 2: 518). Etymology of Jarguye people provincial dialect is mentioned in book of Al-Isfahan: Jarguye, late Rodasht and some mountain villages and Marbin Sade, near Isfahan as well as Gaz and Borkhar people have a special language that other people do not understand. It is called provincial language and most of its vocabularies are related to Pahlavi and most of Zoroastrians use it. There was Pelé land in Espahan; Pelé mans city. They might want to offer Arabic language as city language, they have used provincial that means urban (Jenab, 1992: 128).

In this paper, phonetics of two provincial and Jewish dialects is studied from comparative perspective. Provincial dialect means provincial dialect of Dastjerd village that is sub-district of Jarguye. Writer's dialect is provincial and has used examples of three speakers in collecting his examples. He has met appropriate characteristics of speakers such as being rural, elder, native and male (Shiri, 2007: 42). The examples of Jewish dialect rely entirely on examples mentioned in of "Jewish dialect of Isfahan" written by Dr. Kalbasi; paper structure is based on first chapter of book.

Our hypotheses in this paper include:

1- Are these dialects from the same family and group as mentioned in some of sources?

2. What are the differences and similarities between two dialects from phonetic point of view?

The aim of this paper is to register part of provincial dialect features and examples before it is completely forgotten and disappeared.

Diphthongs

There three other diphthongs in each dialect [au], [eu] and [âu] in addition to 6 diphthongs in standard Farsi [ou], [ây], [uy], [oy], [ay], [ey]. According to book of "Jewish dialect of Isfahan" diphthongs are as follows: (Kalbasi, 2008: 24)(Table 1-1. Diphthongs)

Table 1. Diphthongs

Diphthongs	Jewish dialect of Esfahan	Provincial dialect	Standard Farsi
[au]:	Begartaun (Gaŝteam)	Bepaum (Paideam)	Gaŝteam/ P**â**ideam
[eu]:	Teu	Teu	Tab
[âu]:	U**âð**	U**âð**	**âð**u
[ou]:	Xou	Xou	X**â**b
[ây]:	Hâyne	?âyna	**â**yine
[uy]:	Guym (Mosalman)	ouyar**?** (Abyar)	Mosalm**â**n/**â**by**â**r
[oy]:	Xiŝoqoym	Xiŝoqoym	Xiŝ o qom
[ey]:	?eyvun	?eyvun	eyv**â**n
[ay]:	?ayvun	?ayvun	Heyv**â**n

The second component ([u]) of [eu] [âu] [ou] diphthongs in both dialects: when [u] is combined with other component becomes [v] consonant (Kalbasi, 2008: 25).(Table 1-2. Diphthongs)

Table 2. Diphthongs

Jewish dialect of Esfahan	Provincial dialect	Standard Farsi
Teu +i→tevi	Teu +i→Tevi	Tabi
âðu+â→ðâvâ	**âð**u+â→ðâuvâ	ðâuhâ
Xou+ e→xove	Xou+ e→Xovi	Xâbe

When ðâu is pluralized, [u] stays constant in provincial dialect and [v] consonant is added for easey pronunciation. In word of xab, letter [i] is used at the end of term instead of [e] vowel.

[au] diphthong of Jewish dialect is seen only on border of two morphemes between past participle ending in [a] and verb id of first person singular -un (Kalbasi, 2008: 25).(Table 1-3. Diphthongs)

Table 3. Diphthongs

Jewish dialect of Esfahan	Provincial dialect	Standard Farsi
Begartaun	Begartohum	Gashteam
Bepaun	Bepaum	Pâideam
Bepičaun	Bepičohum	pičideam

As we see, [au] diphthong is repeated in pâideam verb of both dialects. Another important point of three verbs is id difference of first person singular in both dialects; this id is as [-un] in Jewish dialect and as [-um] in provincial dialect.

Syllable structure

Syllable is a continuous phonetic string in both dialects and is composed of one vowel and one to three consonants.

Vowel forms the core or center of syllables and consonant forms its margin or domain (Kalbasi, 2008: 26).

Consonants are phones that a barrier is created in vocal tract during their production in outlet air flow from mouth (Shiri, 2010: 62). Also, vowels are important class of speech phones and air flow passes out of mouth without during their production, (Rahimian, 2010: 57).

Syllables of both dialects are as follows.(Table 2. Syllable structure)

Table 4. Syllable structure

	Provincial dialect	Jewish dialect (kalbasi, 2008:217)	Standard Farsi
Cv:	θi	θi	θi
Cvc:	Pir	Pir (ibid:204)	Pir
Cvcc:	Dard	Dard (ibid:206)	Dard

In both dialects, a consonant occupies location before center and one (pir) or two consonants (dard) occupy the next location or no consonant (θi) occupy). It must be mentioned that «c» refers to consonant and «v» to vowels in above examples. Hamza is pronounced in both dialects like standard Farsi in position before beginning vowels. As it was mentioned in book of "Jewish dialect of Isfahan" there is no consensus among linguists on Hamza as phonetic unit or phoneme (ibid: 27). Examples that offered in that book as common words and witness of Hamza before beginning vowels include: ou? (âb), un? (ân)? Art (ârd) (ibid: 27) and the three words are pronounced the same in both dialects.

Consonant clusters

The immediate sequence of consonants is called cluster (Samare, 2009: 114). This means that consonants are placed side by side without distance. Consonants clusters can be divided into two groups: consonants that follow each other at the junction of two syllables (pambe) and consonants that follow each other in a syllable (garm) (ibid: 27). Those related to the second type will be studied below. cvcc syllable was mentioned in syllables structure discussion. In this case, two consonants are placed after syllables core that is vowel and form consonant cluster. In this position, consonant clusters can be divided into following types.

The group that its first consonant is [ŝ].(Table 3-1-1. Consonant clusters)

Table 5. Consonant clusters

Consonant clusters	Jewish dialect	Provincialdialect	Standard Farsi
[ŝd]	Pâlaŝd(Kalbasi, 2008:27)	-	Âb-keš
[šg/šk]	Gša (ibid:27)	ašk?	Ašk
[št]	Mošt (ibid:230)	Mošt	Mošt
[šn]	Ĵašn(ibid:27)	Jašn	Jašn
[šm]	xašm-gin(ibid:210)	Xašm-gin	Xašm-gin

In the case of [šd] consonant cluster, [d] is changed to [t] in provincial dialect: there are many examples of this type, including: (Table 3-1-2. Consonant clusters)

Table 6. Consonant clusters

Jewish dialect	Provincial dialect	Standard Farsi
Bâlišd(ibid:199)	balešt	baleš
eŠd(ibid:215)ð	ješt	ðešt
Xorešd(ibid:210)	xorešt	xorešt/ xoreš
(ibid:215) Košde	košta	Košte

In the first group of Jewish [šg] consonant cluster, it is changed to [šk] in provincial dialect. This can be seen in the following examples:(Table 3-1-3. Consonant clusters)

Table 7. Consonant clusters

Jewish dialect	Provincial dialect	Standard Farsi
ðerešg(ibid:215)	ðerešk	ðerešk
Kâšgi (ibid:224)	Xaška	Kaški
?oš (g) (ibid:210)	oŝka?	Xoŝk
Pešg (ibid:203)	pešk	Pešk
lašgar (ibid:228)	laškar	Laškar
Rešg (ibid:213)	rešk	rešk (louse eggs)
Xošgel(ibid:215)	xoskel	Xošgel, ðiba, qašang

An example of consonant cluster [šm] in book of "Jewish dialect of Isfahan" is češm (ibid: 27) that is changed to češ in provincial dialect through [m] clision.

The group that its first consonant is [r]. (Table 3-2-1. Consonant clusters)

Table 8. Consonant clusters

Consonant clusters	Jewish dialect	Provincial dialect	Standard Farsi
[rk]: (ibid:27)	tirk	Turk	Abele
[rt]: (ibid:27)	rt?â	rt?â	ârd
[rf]: (ibid:27)	varf	Varf	barf
[ra]: (ibid:27)	barq	Barq	barq
[rg]: (ibid:27)	gorg	Gorg	gorg
[rč]: (ibid:27)	parč	Parč	Pârč
[Rd]: (ibid:27)	Ird?	urd?	xerad
[rθ]: (ibid:28)	Tarθ	Tarθ	Tarθ
[rb]: (ibid:28)	arbč	Arbč	čarb
[rx]: (ibid:28)	arxč	Arxč	čarx
[rm]: (ibid:28)	armč	Armč	čarm
[rð]: (ibid:28)	Narð	Narð	Naðr

In this group, a word that is formed from [rk] cluster is Tirk and the difference between Jewish and provincial dialects is in I letter; this term is pronounced as turk in provincial dialect. That is why [i] is changed to [u] or [o] in both dialects. Some of these cases include:(Table 3-2-2. Consonant clusters)

Table 9. Consonant clusters

Jewish dialect	Provincial dialect	Standard Farsi
Tit (ibid:206)	Tut	Tut
Dir (ibid:212)	Dur	Dur
Xin (ibid:211)	Xun	Xun
Xiθ (ibid:211)	Xoθ	xiθ
Pik (ibid:203)	Puk	puk
θAbin (ibid:219)	Abunθ	âbun
Dik (ibid:212)	Duk	duk
Ri (ibid:214)	ro	ru(face)
Til (ibid:220)	Tul	Tul
Fit (ibid:222)	Fut	fut
Pir (ibid:202)	Pora	pesar
Pil (ibid:203)	Pul	pul

The group that its first consonant is [n].(Table 3-3. Consonant clusters)

Table 10. Consonant clusters

Consonant clusters	Jewish dialect	Provincial dialect	Standard Farsi
[nĴ]:	?ârenĴ(ibid:28)	?ârenĴ	ârenĴ
[nd]:	Eθband(ibid)	eθband?	eθfand
[nd]:	bârhang(ibid)	bârhang	bârhang

The group that its first consonant is [f].(Table 3-4-1. Consonant clusters)

Table 11. Consonant clusters

Consonant clusters	Jewish dialect	Provincial dialect	Standard Farsi
[ft]:	Moft (ibid)	Moft	Moft
[fd]:	kolofd (ibid)	Koloft	Koloft

The [fd] consonant cluster is changed to [ft] almost in all cases in provincial dialect as it can be seen in koloft term and the following cases:(Table 3-4-2. Consonant clusters)

Table 12. Consonant clusters

Jewish dialect	Provincial dialect	Standard Farsi
Ĵofd (ibid:207)	joft	Joft
Ĵofdak (ibid)	joftak	Joftak
?umad-o-rafd (ibid:195)	Umad-o-raft?	âmad-o-raft
Kufdar (ibid:224)	Kafter	kabutar
Dar-kafde (ibid:197)	Dekafta	Oftâde
?ofdou(ibid:195)	Oftou?	âftâb
?ofdove (ibid)	ofova?	âftâbe

The group that its first consonant is [x].(Table 3-5. Consonant clusters)

Table 13. Consonant clusters

Consonant clusters	Jewish dialect	Provincial dialect	Standard Farsi
[xd]:	Deraxd(ibid:28)	Deraxt	Deraxt
[xr]:	eθtaxr ?(ibid)	eθtaxr?	Eθtaxr
[xt]:	Baxt(ibid)	baxt	Baxt
[xš]:	paxš(ibid)	paxš	Paxš
[xθ]:	Toxθ(ibid)	toxθ	Toxθ
[xm]:	ðaxm (ibid)	ðaxm	ðaxm
[xl]:	Daxl(ibid)	daxl	Daxl
[xf]:	θaxf (ibid)	axf	θaqf

An example on [xm] consonants is vaxm in the book of "Jewish dialect of Isfahan", that is pronounced as vaxf in provincial dialect.

The group that its first consonant is [l].(Table 3-6. Consonant clusters)

Table 14. Consonant clusters

Consonant clusters	Jewish dialect	Provincial dialect	Standard Farsi
[lf]: (ibid:28)	Qolf	Qolf	qofl
[lq]: (ibid)	Halq	halq	halq
[lt]: (ibid)	Salt	Salt	θatl
[lg]: (ibid)	Valg	Valg	barg

Change and metathesis is occurred in three of examples. Change and metathesis are phonetic processes. Two consonants change their place in metathesis so that first consonant takes second consonant position and second consonant takes first consonant position (Haghshenas, 2004: 156). In the above examples, salt and qolf follow from metathesis process. A chain unit of speech chain is changed to another chain in change phonetic process with no justification for it in heterogeneous, homogeneous and vowel consonance processes framework (ibid: 160). Valg word of above examples follows change rule.

The group that its first consonant is [h]:(Table 3-7. Consonant clusters)

Table 15. Consonant clusters

Consonant clusters	Jewish dialect	Provincial dialect	Standard Farsi
[hb]: (ibid:29)	θAhb	θahb	θobh
[hš]: (ibid)	Nahš	nahš	n: š
[hθ]: (ibid)	Hahθ	hahθ	Nahθ
[hr]: (ibid)	Qahr	qa:r	Qahr

The first consonant of [hr] consonant cluster is changed to previous stretched vowel like qa:r, ša:r, ða:r (ðahr) and ða:re (ðahre) in provincial dialect. This term is pronounced stretched in Jewish dialect like provincial dialect (pp 215 and 219, book of "Jewish dialect of Isfahan").

The group that its first consonant is [d]:(Table 3-8. Consonant clusters)

Table 16. Consonant clusters

Consonant clusters	Jewish dialect	Provincial dialect	Standârd Farsi
[dr]: (ibid)	?inqadr	?inqadar	inqadar

Inqadr term is pronounced as ?inaqad in provincial dialect for easiness.

The group that its first consonant is [b]:(Table 3-9. Consonant clusters)

Table 17. Consonant clusters

Consonant clusters	Jewish dialect	Provincial dialect	Standard Farsi
[br]: (ibid)	Sabr	Sabr	sabr

Sabr term is pronounced as sab in provincial dialect.

Stress

Pitch, intensity or tension that appears on syllable unit and highlights its over adjacent syllables is called stress. Stress in Farsi language is of pitch type (Haghshenas, 2004: 124). Stress in Jewish dialect of Isfahan is of pitch type like Farsi and has phonological role; it differentiates meaning, such as daθâ (Dasha) (Kalbasi, 2008: 29). Stress in provincial dialect is of pitch type like Farsi and Jewish dialects, it has phonological role; it differentiates meaning, for example, syllable stress is on [on] in eθirón and means "I'm slave".Stress position is identical in provincial and Jewish dialects and is located on terms as below:

1. Stress on nouns, adjectives, pronouns, prepositions and numbers is on final syllable.(Table 4-1-1. Stress)

Table 18. Stress

Word type	Jewish dialect of Esfahan	Provincial dialect	Standard Farsi
Noun	Be′ðar(ibid:30)	be′ra	barâdar
Adjective	mehra′bun (ibid)	mehra′bun	mehrbân
Adverb	?am′iša (ibid)	Ha′éš/ham′iša	hamiše
Pronoun	′mââ? (ibid)	′mââ?	ma
Preposition	Be′râ(ibid)	Ba′râ	barâye
Number	Pun′ðe(ibid)	pun′ða	pânðdah

We offer other examples of stress below:(Table 4-1-2. Stress)

Table 19. Stress

Word type	Jewish dialect	Provincial dialect	Standard Farsi
Noun	Di′vâl (ibid:213)	de′ðar	divâr
Adjective	Ya-′dâr (ibid:206)	Ya-′dâr	jâdâr
Adverb	Gâ′re (ibid:202)	Gâ′ra	Pâin
Pronoun	še′ma (ibid:219)	še′ma	šomâ
Preposition	be′Ĵoð (ibid:199)	be′Ĵoð	bejoð
Number	Viθ-o-′yek (ibid:210)	Viθ-o-′yek	biθt-o-yek

All cases have more than one syllable and stress is on final syllable.

2. Stress is on beginning syllable in conjunctions (Ibid: 30).(Table 4-2. Stress)

Table 20. Stress

Jewish dialect	Provincial dialect	Standard Farsi
Bera-?in-ke (ibid:200)	Bara-?in-go	barâye-in-ke
In-ge′? (ibid:64)	In-go′?	in-ke
egar ′?(ibid:30)	eger′?	agar

3. When noun is interjection, the stress will be on beginning syllable of Jewish dialect (ibid: 30). This rule is unlike provincial dialect.(Table 4-3. Stress)

Table 21. Stress

Jewish dialect of Esfahan	Provincial dialect	Standard Farsi
'Buvâ(ibid:30)	baʹba	bâbâ(father)
'Pir-e-dây(ibid:203)	pordaʹiy	pesar-dâyi
'Bâbâ-bele (ibid:202)	Bâbâ-beʹla	pedar-bozorg
'Parvâne(ibid:202)	parvoʹna	parvâne

The stress is on end syllables of provincial dialect and the procedure is almost the same for other nouns.
4- The stress of verbs with negative and verb affixes is on affixes (ibid: 30). In provincial dialect, stress is on mentioned affixes. The following examples of both dialects indicate this.(Table 4-4. Stress)

Table 22. Stress

Verb type	Jewish dialect of Esfahan	Provincial dialect	Standard Farsi
Past tense	ʹbemxos(ibid:30)	ʹbemxos	andâxtam
Present perfect tense	ʹbemkošdi(ibid)	ʹbemkošti	košteam
Past perfect tense	ʹbemkošdeba(ibid)	ʹbemkoštaba	košte-budam
Imperative	ʹbebev(ibid)	ʹbeba	bebor
Subjunctive	'bešim(ibid)	ʹbišim	beravim
Negation	'Me-pare(ibid)	'Va-ʹnaparθa	napors
Negative simplepresent	'namguve(ibid)	'namgura	nemixâham
Negative derivative simple present	Dar-ʹne-kune(ibid)	De-ʹna-kuna	nemioftam

be- is verb affix, me- (Jewish dialect), na- or ne- are negative affixes and stress is on affixes in both dialects. "me" Jewish affix is changed to "na" in naporθ verb. Verb of porθidan is made of prefix va in provincial verb: for example, verbs of porθidam and porθidi are made as « vâmparθâ »and« vâtparθâ » in this dialect.
5. The stress of derivative and compound verbs that are made of nouns and adjectives or derivative affixes in Jewish dialect is on end syllables of non- verb component (or on single syllable non- verb component and non- beginning syllables) (ibid: 30). The rule will be observed in provincial dialect.(Table 4-5. Stress)

Table 23. Stress

Verb type	Jewish dialect	Provincial dialect	Standard Farsi
Derivative verb	'Dar-kune (ibid:30)	'De-kuna	mi-oftam
Compound verb	Ĵande'gi-keruve (ibid)	Ende'gi-keruvað	ðendegi-mikonad
Compound verb	'Duθ-dâru (ibid)	'Duθ-dâru	duθt-dârad

6. The stress of simple verbs with no verb or negative affixes is on first syllable of verb id (ibid:30). The rule holds on simple verbs of provincial dialect.(Table 4-6. Stress)

Table 24. Stress

Verb type	Jewish dialect	Provincial dialect	Standard Farsi
Simple verb	Pu'š-une (ibid)	Pu'š-una/vapu'š-una	mi-pušam
Simple verb	Bax'š-uve (ibid:31)	Bax'š-uva	mi-bax š ad
Simple verb	'Y-une (ibid)	'y-una	mi-âyam
Simple verb	?angâ'r-une (ibid)	?angâ'r-una	harf-mi-ðanam

The verb "mipušam" (wear) of above examples is made with affix [va] in provincial dialect. We can find two equivalents for the verb in this dialect: «vapuš-una» and «puš-una» and maybe affix [va] is equivalent to [mi] in standard Farsi. Other examples of simple present with [mi] affix include: mixoram = vaxerona (I eat), mineviθam= vanevsona (I write), miporθam= vaparsona (I ask), Jam mikonam= vačinona (I collect). In the case of sentence stress, it must be said that stress location in Jewish dialect follows from word stress; it means that, sentence has a special stress in order to emphasize on one of components (Ibid: 31). The stress of provincial dialect is on component that speaker emphasizes.
Morphophonemic processes
Language is composed of different units. The smallest unit of language that has meaning or grammatical function and is used within words constructs is morpheme. (Afrashi, 2009: 76) .Morpheme is another name of morph. When some of morphemes are put beside each other, they affect each other and are subject to phonetic changes. These types of phonetic changes are called "Morphophonemic processes". These changes include change, clision, epenthesis and metathesis

(Kalbasi, 2008: 31).In the following cases, we address "change, clision and epenthesis" which takes place in two provincial and Jewish dialects of Isfahan:

Change, clision and epenthesis

Sometimes a chain unit is changed to another unit in speech chain with no justification for it in heterogeneous, homogeneous and vowel consonance processes framework (Haghshenas, 2004: 160).Change occurs sometimes with clision or epenthesis of one or more sounds (consonant or vowel) in speech chain (Kalbasi, 2008: 31). We provide Jewish dialect examples that are mentioned in book of "Jewish dialect of Isfahan" and include change, clision and epenthesis between one morpheme end and beginning of another morpheme in order to match change, clision and epenthesis examples of two dialects as well as we present similar examples in provincial dialect. Moreover, only the border of morphemes are pointed with (+) in the mentioned book whose phonetic changes are considered, not the border of all morphemes.

1.------------e+u--------→u/ou

It is evident between following morphemes: (ibid: 32)(Table 5-1. Morphophonemic processes)

Table 25. Morphophonemic processes

Jewish dialect of Esfahan	Provincial dialect	Standard Farsi
Be+umey→bumey	Be+umey→boamoy	1-between verb affix and verb stem: â+madi
Ne+umey→nooumey	Ne+umey→noumey	2-between negative affix and verb stem: na+y â madi
Ne+u→nou	Ne+u→niu	3- between negative affix and copula Niθt
Bume+un→bumoun	Bume+um→bumom	4- between verb affix and verb id Âmadam

There is difference between negative affix and copula of both dialects in third case; in fact provincial dialect examples do not follow (e+u) but follow (e+i).

2.--------------e+i-------------→i′ey/e?i

It is evident between following morphemes: (ibid: 32)(Table 5-2. Morphophonemic processes)

Table 26. Morphophonemic processes

Standard Farsi	Provincial dialect	Jewish dialect of Esfahan
Be+im→bim	Be+im→bim	1-between verb affix and verb stem: biyâim
Ne+ime→neyme	Ne+ima→neyma	2-between negative affix and verb stem: nemiâyam
Ne+im→neym	Ne+im→ne?im	3- between negative affix and copula niθtim
Bume+i→bumey	Bume+i→bumuy	4- between verb affix and verb id âmadi
Keðe+i→keðe?i	Keye+i→keye?i	5- between noun and indefinite sign xanei

In third case, (e+i) change appears as (e?i) in provincial dialect

3. ------------e+a----------→a/iya

It is evident between following morphemes: (ibid: 34) (Table 5-3. Morphophonemic processes)

Table 27. Morphophonemic processes

Be+alu→balu Be+arðun→biyarðun	Be+alu→balu Be+arðun→biyarðun	1-between verb affix and verb stem: bogðarad biyâraðm
Ne+arðuve→narðuve	Na+arðuva→narðuva Na+haĴuva→naĴuva	2-between negative affix and verb stem: nemiarðad

The second part is pronounced in two forms in provincial dialect. In one case, (a + a) is pronounced and in another case, (a + h) changes to (a). Both of them are negative affix of (na).

4. ----------e+e-----→e/e:/ey/eye/ a/ay

It is evident between following morphemes: (ibid: 33) (Table 5-4. Morphophonemic processes)

Table 28. Morphophonemic processes

Be+engâr→bengâr Be+eĴâ→be:Ĵâ Be+emoθ→beymoθ	Be+eangâr→ bangara Be+?aĴâ→baĴâ Be+amoθ→bamoθa	1-between verb affix and verb stem: harf-beðan arðid biyâmuð
Ne+eĴa→ne:Ĵâ Me+emoθ→maymoθ Me+engâr→mangâr	Na+?aĴa→naĴâ Na+?amoθa→na:moθa Na+eangâr→nangâr	2-between negative affix and verb stem: nayarðid nayâmuð harf+naðan
	Ne+end→ne:nd	3- between negative affix and copula niθtand
Bume+end→bumend	Bume+end→bumend	4- between verb affix and verb id âmadand
Keðe+e→keðeye	Keye+e→keyee:	5-between noun and genitive sign xâne
Keðe+e→keðeye	Keye+e→keyee	6- between noun and definite sign xâne (definite)

There are differences between changed morphemes.

The changes of harf beðan (to speak) is made of (e + e) (e) in Jewish dialect, and (a) is the result of this combination in provincial dialect. In the case of verb arðid and na-arðid (valued), (e + e) is changed to (e :) in Jewish dialect and (e +?) is changed to (a) in provincial dialect. In the case of these two verbs, what is striking in phonetic system is intact form of middle Avestic consonants (Ĵ) that is changed to (z) later in Tarfani Ashkani Pahlavi (Aboulghasemi, 2008: 12). In the case of bi-âmuð verb (to learn), (e + e) is changed to (ey) in Jewish dialect and (e + a) is changed to (a) in provincial dialect. In the case of na-âmuð (don't learn), (e + e) is changed to (ay) in Jewish dialect and (a+?) is changed to (a:) in provincial dialect. In the case of harf- naðan (don't speak), (e + e) is changed to (a) in Jewish dialect and (a+e) is changed to (a:) in provincial dialect. In the case of niθtand (are not), (e + e) is changed to (e) in Jewish dialect and (e+e) is changed to (e:) in provincial dialect.

In the last word of Xane (home) (in both changes), (e + e) vicinity leads to (eye) in Jewish dialect and (e:) in provincial dialect.

In the last word of Xane (home) (in both changes), (e + e) vicinity leads to (eye) in Jewish dialect and (e:) in provincial dialect.

5. ------------e+v------------→uv/a

It is evident between following morphemes: (ibid: 34) (Table 5-5. Morphophonemic processes)

Table 29. Morphophonemic processes

Jewish dialect of Esfahan	Provincial dialect	Standard Farsi
Be+vâun→buvâun	Be+vaĴun→baĴun	1-between verb affix and verb stem: beguyam

In the above example, (e + v) is changed to (uv) in Jewish dialect and to (a) in provincial dialect

6.----------e+veC--------→euC

It is evident between following morphemes: (ibid: 34) (Table 5-6. Morphophonemic processes)

Table 30. Morphophonemic processes

Be+veðer→beuðer	Be+veair→beveir	1-between verb affix and verb stem: bogðar

In the above example, change occurs only in Jewish dialect and there is no change in provincial dialect morphemes.

7. --------e+CC----------→aCC

It is evident between following morphemes: (Table 5-7. Morphophonemic processes)

Table 31. Morphophonemic processes

Jewish dialect of Esfahan	Provincial dialect	Standard Farsi
Ne+mkošd→namkošd	Na+mkošt→namkošt	between negative affix and continuous personal pronouns nakoštam
Ne+bdoun→nabdoun	Na+bohom→nabohom	between negative affix and verb stem našodeam

As can be seen in the above example, change occurs only in Jewish dialect.

In fact, the short vowel of (a) that is due to change in Jewish dialect, is present in intact negation affix of provincial dialect.

8. -----------e+ (C) y------→i (C)y

It is evident between following morphemes: (Table 5-8. Morphophonemic processes)

Table 32. Morphophonemic processes

Jewish dialect of Esfahan	Provincial dialect	Standard Farsi
Be+yuvš→biyuvš	Be+yuš→beyuš	1- between verb affix and verb stem bejuš
be+šyoθ→/bišyoθ	Vâ/be+švoθ→vâ/bešvoθ	2- between negative affix and continuous personal pronouns Jaθt

In the above example, change occurs only in Jewish dialect and there is no change in provincial dialect.

9. -----------e+CiC---------→iCiC/aCC

It is evident between following morphemes: (ibid: 35) (Table 5-9. Morphophonemic processes)

Table 33. Morphophonemic processes

Jewish dialect of Esfahan	Provincial dialect	Standard Farsi
Be+gir→ (b)igir	Be+gir→bigi	1- between verb affix and verb stem begir
me+birinid→mabrinid	Ne+birini(d)→nebrini (d)	2- between negative affix and verb stem nabarid

In the case of two examples, change is occurred in both dialects but is not observed in the second verbs.

10. -------e+CoC--------→oCoC

It is evident between following morphemes: (ibid: 35) (Table 5-10. Morphophonemic processes)

Table 34. Morphophonemic processes

Be+xor→boxor	Be+xor→boxo (r)	1- between verb affix and verb stem boxor
me+xor→moxor	Na+xor→naxo (r)	2- between negative affix and verb stem naxor

In the case of above examples, change is not occurred in naxor (don't eat) verb of provincial dialect.

11. -----------i+i-------→i/i?i

It is evident between following morphemes: (Kalbasi, 2008:36) (Table 5-11. Morphophonemic processes)

Table 35. Morphophonemic processes

Ni+ime→nime	i+ima →šimaš	between verb affix and verb id mi-nešinim (jewish)/mi-ravim (provincial)
?âhi+i→?âhi?i či+i→či	?âvi+i→?âvi?i či+i→či	between noun and indefinite sign âhu (indefinite) čið (indefinite)

In the above examples, we used other example since there is no equivalence for first verb of provincial dialect.

We can find other changes between morphemes of both dialects that we ignore them (To see examples of changes in Jewish dialect → Kalbasi, p. 36). There are other examples in epenthesisition to mentioned items that we don't mention them. Sometimes the consonance is resonated on border of two morphemes. This is usually due to emphasis stress (ibid: 41). Here we mention such cases in book of "Jewish dialect of Isfahan" (ibid: 41) with their equivalent forms in provincial dialect. (Table 5-12. Morphophonemic processes)

Table 36. Morphophonemic processes

Jewish dialect of Esfahan	Provincial dialect	Standard Farsi
Be+pâ→beppâ	Be+pâ→beppâ	bepâ (ibid:41)
Be+per→bepper	Be+para→beppara	bepar (ibid)
Be+perâun→bepperâun	Be+parom→bepparom	paridam(ibid)
Be+terek→betterek	Be+terek→betterek	beterek (ibid)
Be+mer→bemmer→bembera	Be+mer→bemmer→bembera	bemir(ibid)
Sepây+e→sepâyye	Sepây+a→sepâyya	θe-pâye(ibid)
Paθ+â→paθθâ	Paθ+â→paθθâ	nobat, dafe(ibid)

All examples on change, clision and epenthesis are examples of phonetic processes over two morphemes border. There are examples in dialects that have change, clision, epenthesis and metastasis altogether. Since we mentioned examples of change and metastasis in section of consonant clusters, then examples of epenthesisition and clision are provided below (Ibid: 42)

Clision: (Table 5-13. Morphophonemic processes)

Table 37. Morphophonemic processes

Jewish dialect	Provincial dialect	Standard Farsi
šahar→ša:r (ibid:42)	šahar→ša:r	šahr
am?→Ĵa:mĴ (ibid)	am?→Ĵa:mĴ	Ĵam
buqalamun→buqalamu (ibid:201)	buqalamun→buqalamu	buqalamun
potk→pok (ibid:202)	potk→pok	potk

Epenthesis: (Table 5-14. Morphophonemic processes)

Table 38. Morphophonemic processes

čaθbnak→čaθbenak (ibid:208)	čaθbnak→čaθbenak	čaθbnak
nardeban→nevardevon (ibid:232)	nardeban→nevardevon	nardeban
šepeš→?išpiš (ibid:218)	šepeš→?išpiš	šepeš
Šotor→?oštor(ibid)	Šotor→?oštor	šotor

Mediator Voices

Mediator voices are located between members of vowel clusters or consonant on border of two syllables. (Ibid: 42)
Mediator voices are common in both dialects and include the following types:(Table 6. Mediator Voices)

Table 39. Mediator Voices

Mediator voice	Jewish dialect of Esfahan	Provincial dialect	Standard Farsi
[?]:(ibid:42)	keðe[?]i	Keye[?]i	xânei
[y]: (ibid)	Keðe[y]e	Keye[y]e→keya	xâne
[v]: (ibid)	Bu[v]â	Bu[v]â	buhâ
[g]: (ibid)	tâĴe[g]i	Taze[g]i	tâðegi
[a]: (ibid)	Mehr[a]bun	Mehr[a]bun	mehraban
[e]: (ibid)	Un[e]verĴ	Un[e]verĴ	Ĵânevar
[i]: (ibid)	Tong[i]ci	Tong[i]ci	tonge-kučak

Results

There are nine common diphthongs in both dialects as well as there are similarities between both dialects in terms of converting second component of [eu] [âu] [ou] diphthongs, that is [u] to [v], except in one case. (Table 1-1. Diphthongs) The diphthong

[au] is seen in both dialects only on border between two morphs of past participle ending in [a] and verb id of first person singular [-un]. (Table 1-3. Diphthongs)

2. Both dialects are similar in syllables construct. (Table 2. Syllable structure)

3. There are a few differences in consonant clusters of both dialects: for example, Jewish consonant cluster of [šd], is seen in [št] form of provincial dialect. (Table 3-1-2. Consonant clusters) Also, Jewish consonant cluster of [šg] is seen as [šk] of provincial dialect. (Table 3-1-3. Consonant clusters) Jewish consonant cluster of [fd] becomes [ft] in provincial dialect almost in all cases. (Table 3-4-1. Consonant clusters) Consonant cluster of [xd] becomes [xt] in provincial dialect. (Table 3-5. Consonant clusters) Consonant cluster of [hr] is used without conversion in Jewish dialect but in provincial dialect the preceding vowel of first consonant cluster is stretched in most cases such as terms (sahr, qahr, ðahr) that are uttered in provincial dialect as (ša: r, qa: r, ða: r). (Table 3-7. Consonant clusters) 4. Stress position of both dialects is the same except one case when a noun is used as interjection. In these cases, Jewish dialect stress is on initial syllable and provincial dialect stress is on final syllable of interjection noun. (Table 4-3. Stress) 5. There are few differences between changed words of both dialects in morphophonemic process; for example, (e + i) is changed to (e? I) in provincial dialect and it is changed to (ey) in Jewish dialect. (Table 5-2. Morphophonemic processes) In another case, compounding (e)s in Jewish dialect leads to (e + e) and to (a) in provincial dialect. (Table 5-4. Morphophonemic processes) In some cases, no change occurs in provincial dialect; for example (e + V, C) compound is changed to (euC) in Jewish dialect, (Table 5-6. Morphophonemic processes) but it is pronounced in provincial dialect as primary form; there are other cases of this kind that are changed to other compounds in Jewish dialect such as (e + CC) to (aCC) (Table 5-7. Morphophonemic processes), (e + (C) y) to (i (C) y) (Table 5-8. Morphophonemic processes), (e + CeC) to (eCC /aCC) and (e + CiC) to (iCiC / aCC). (Table 5-9. Morphophonemic processes) There are no changes in such cases**.** There are common examples in both dialects on consonance of two words border due to emphasis stress which leads to repeat and resonance of second morpheme. Also, there are common words in both dialects where metathesis, clision and epenthesis processes are applied. We can find more metathesis words in Jewish dialect than provincial dialect such as Xarâš (scratch) and fitile (wicks) that are pronounced as (xešar) and (pilite) in this dialect.

6. There are common mediator voices in both dialects.

(**Table** 6. Mediator Voices)

Footnotes:

1. Morphophonemic
2. Morpheme
3. Change
4. clision
5. Epenthesis
6. Metathesis

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