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Research articleMousa Mahmoudzahi*, Agnes Korn¹, Carina Jahani²

Synchronically unexpected /n/ in the Balochi dialect of Iranshahr

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Abstract: Through the passage of time, changes take place in any language. Balochi has experienced historical changes in different layers of its structure. The aim of this article is to describe cases of /n/ in a specific Balochi dialect that are synchronically unexpected because, for instance, the equivalent word in Persian or in other Balochi dialects does not have an /n/, or there are certain forms in the paradigm of a lexeme that do not contain /n/. The focus is on the dialect spoken in and around the regions of Bompur and Iranshahr in Sistan and Baluchestan Province, Iran.

The insertion of unetymological /n/ in words with more than one syllable often causes a change of syllable structure from an open to a closed syllable. It is possible that a preference for closed syllables has got the process of /n/ insertion underway. The reason why /n/ is chosen could be that /n/ is available for nasalization of a vowel. This nasal vowel can then be re-interpreted as VC.

Keywords: Balochi, phonology, unetymological /n/, syllable structure, nasalization

1 Introduction

Through the passage of time, changes take place in different layers (e.g. phonology, morphology, syntax, and semantics) of any human language. These changes are studied in the field of *historical linguistics*. Like other languages, Balochi and its dialects also have experienced historical changes in different layers of their structure.

Korn (2005: 17) states that “Balochi is of particular importance for the study of the history of the Iranian languages since (in contrast to all other modern Iranian languages) it directly reflects the Old Iranian consonants in all positions of the word”. It is therefore a key witness to the reconstruction of earlier stages of other Iranian languages, for which historical evidence is often scarce or difficult to interpret. However, because of the scarcity of historical documentation of Balochi, it cannot be studied in isolation. Its study is closely intertwined with that of other Iranian languages, especially Persian (Old, Middle and New) and Parthian, and contact languages such as Arabic and a number of Indic languages.

The aim of this article is to describe cases of /n/ which are synchronically irregular and thus unexpected from the point of view of a speaker of a certain Balochi dialect because, for example, the equivalent word in Persian or in other Balochi dialects does not have an /n/, or because there are certain forms in the paradigm of a lexeme that do not contain /n/. Our description is based on a specific Balochi dialect and provides a large number of examples. Since it seems that the phenomenon under investigation varies across Balochi dialects, a comparison with data from other dialects gives a more complete picture of the phenomenon and the mechanisms behind it. The focus in this article is on the dialect spoken in and around the regions of Bompur and Iranshahr (Pahra) in the central part of Sistan and Baluchestan Province, Iran (henceforth abbreviated IrshB), and our comparative material comes mainly from the Sarhaddi dialect in Iranian Balochistan (henceforth abbreviated SarhB) as spoken in and around Khash.

* Velayat University, Iranshahr, Iran, E-mail: m.mahmoudzahi@gmail.com

¹ CNRS; Mondes iraniens et indiens, Paris, France

² Uppsala University, Sweden

The main question to be investigated in this article concerns what historical, analogical and phonological features are at work to produce a synchronically unexpected /n/ in IrshB. We will also investigate the relationship between /n/-insertion and vowel nasalization in this dialect. By “nasalization” we mean the pronunciation of a vowel followed by *n* as a nasal vowel; Balochi dialects vary considerably with regard to the presence or absence of this phenomenon. We argue that dialects which show it are more likely to show cases of unetymological *n* than those that do not. In some Balochi dialects, nasalized vowels have attained the status of separate phonemes. In IrshB, nasalization of vowels is common, but only occurs as an alternative pronunciation of a vowel followed by *n*, and is not of a phonemic nature. We will also describe the phonological contexts where inserted unetymological /n/ occurs most frequently in this dialect, and investigate to what extent unetymological /n/ is common in loanwords. This study is an attempt to shed light on a phonological process in Balochi that so far has not been described in full for any Balochi dialect, let alone for the language as a whole.

2 Review of literature

The oldest linguistic works on Balochi date back to the 19th century. Korn (2005: 21–26, 33–36) gives an exhaustive review of earlier sources and of studies on the history of research on Balochi. Nourzaei (2017: 35–36) describes the main sources on Balochi dialects spoken in and outside Iran. Okati (2012: 17) notes that “[d]uring the last two decades, more systematic work has been done on Balochi and new material from a wide range of dialects has been provided.”

Studies on the phonology of Balochi in general and Iranian Balochi and/or specific phonological features in particular have been carried out by, e.g., Spooner (1967); Baranzehi (2003); Korn (2005); Ahangar (2007); Jahani and Korn (2009); Okati (2012); and Soohani (2017).

While Korn (2005) treats phonology and vocabulary from a diachronic perspective, the other works mostly take a synchronic approach. Korn (2005: 216–217) discusses secondary /n/ in Balochi and provides some examples of this phenomenon from various dialects of Balochi, e.g., *agān* / *aga(r)* ‘if’, *bānz* / *bāz* ‘falcon’, *pōnz* / *pōz* ‘nose’, *pōnšī* / *pōšī* ‘the day after tomorrow’, *bānklēnk* / *bāklīk* ‘broad beans’, *nazīnk* / *naz(z)īk* ‘near’, *rōtīnk* / *rōt* ‘intestines’, *bānzul* / *bāzul* ‘wing’, *jānsūs* / *jāsūs* ‘spy’ and a number of other words.

Okati (2012: 202) discusses the mechanisms that trigger insertion of unetymological /n/ and finds that such insertion could be attributed to hypercorrection: “the speaker-listener, hearing a spontaneously nasalized vowel, incorrectly inserts a nasal after the vowel on the basis of the more prevalent template that vowel nasalization is conditioned by a following nasal.” Farrell (2003: 173–177), studying the Balochi of Karachi, where nasalization is strong, finds that insertion of unetymological /n/ and nasalization are two closely related phenomena. He notes that “there is a considerable fluidity of nasal insertion and deletion” (Farrell 2003: 174–175); one finds words with a nasal vowel where no *n* is present etymologically, and a nasal (*n* or *m*, depending on the phonological environment) is even inserted in a number of English loanwords in Karachi Balochi. According to Farrell, in Karachi Balochi some nasal vowels have acquired phonological status and are no longer variants of vowel + *n*.

3 The corpus

The usage of inserted *n* varies between different Balochi dialects. There is no dictionary for IrshB, the dialect investigated here, and thus no work from which the lexicon with inserted *n* could be extracted. The data for IrshB was gathered by Mousa Mahmoudzahi, himself also a speaker of IrshB, through long-term participant observation and fieldwork in the area surrounding Iranshahr and the

Bampur region in the Iranshahr township of Sistan and Baluchestan Province, Iran. The system of transcription of the data is that of Korn (2005).

Drawing on the data gathered for this investigation, a number of words used in IrshB that contain synchronically unexpected /n/ will be presented. More words will most likely be found if additional data collection is carried out among speakers of IrshB. The words are arranged in three different categories as follows:

- (1) absence of an equivalent *n* in cognates found in other Iranian languages;
- (2) absence of an equivalent *n* in the variant of the word found in the Sarhaddi dialect of Balochi (SarhB);
- (3) unetymological *n* in loanwords of non-Iranian origin.

In each category, the words are arranged in alphabetical order according to the Latin alphabet and are compared to lexemes from Persian and other Iranian languages (without implying that a given item is borrowed).¹ We have chosen to present the data first and offer possible explanations in Section 4.

3.1 Absence of an equivalent /n/ in cognates found in other Iranian languages

There are a good number of words that, from a synchronic point of view, show an unexpected *n* when compared with New Persian or with some other Balochi dialects. This section also includes words that are or may be borrowed from Persian (e.g. *agar* and variants), and words that are borrowed, but have been adopted in several Ir. languages (such as *pahlūnk*).

Instances of word-final *n* in our corpus include:

- *agan* ‘if’: MP/NP *agar* (Persian loanword, cf. Korn 2005: 216, 350).²
- *bārēn* ‘maybe’: NP *bārī*.
- *garmān* ‘summer’, in many other Balochi dialects *garmā(g)*: MP *garmāg*, NP *garmā* ‘heat’.
- *grihn* ‘knot, loop’: MP *grih*, NP *giriḥ*, Khotanese *grant^ha-*, Sanskrit $\sqrt{grat^{h}}$ (Persian loanword because of *h* from Old Ir. * θ).³
- *guptān/gwamtān* ‘a kind of needle-work on the clothes of women’: this seems to be related to *gwāpag* (past stem *gwapt*) ‘weave’ (Phl. *waf-*; NP *bāftan*).
- *idān* ‘here’ besides *idā*: Av. *iḍa* (Korn 2005: 140, 347), OP *idā* (Bartholomae 1904: 365). The same form is also seen in the derivatives *paridā/n* ‘around this place / these places’, *šidān* ‘from here’, *hamidān* ‘right here’.
- *kasān* ‘small’: Av. *kasu-* (Korn 2005: 392), MP *keh*, NP *kih*.
- *ōdān* ‘there’ besides *ōd*: Av. *auuadā* (Korn 2005: 351), cf. also the derivatives *parōdā/n* ‘around that place / those places’, *šōdān* ‘from here’, *hamōdān* ‘right here’.
- *pādūnān* ‘at the foot end’: a combination of *pād* ‘foot’ + *-ūn* + obl.pl. *-ān*.
- *pōn* ‘rotten’ (of dates and other fruit): possibly a cognate of the verb *pūsag* ‘decay, rot, become putrid’ and/or Ir. $\sqrt{*pauH/pū-}$ (Cheung 2007: 302f.). While Balochi does not show a present stem with nasal from this root (Korn 2005: 212), Chorasmian has *pwn-* (Cheung 2007: 302f.) and Sanskrit has *punā-*. It is not clear, though, whether the *-n* of *pōn* is due to the verbal formation; it may be influenced by a verbal adjective in *-na-* (**pūna-*), which would have the required meaning.

¹ Words from Middle Persian (MP) and Zoroastrian MP (Pahlavi, Phl.) are cited from MacKenzie (1986) unless otherwise noted; Avestan is from Bartholomae (1904) and Old Persian from Schmitt (2014). New Persian is quoted from the classical language, following Steingass (1892), but adjusted to our system of transcription.

² For variants found in other dialects, see Sections 2 and 4.2.

³ See Hübschmann (1895: 93) and Mayrhofer (EWAia I: 503) for the etymology.

- *rēn* ‘a period when a bird lays eggs’: this is a case similar to *pōn*; it probably belongs to Bal./Phl./NP *rīy-* ‘defecate (vulgar)’. This verb does not have a present stem with nasal, but some related languages do (Sivandi *rin-*, Sanskrit *riṅā-*, Cheung 2007: 188); also, Bal. *rēm* / NP *rīm* ‘pus’ (similarly in related languages) shows that there were derivatives with nasal suffixes from this root.⁴
- *sarūnān* ‘at the head end’: based on *sar* ‘head’, parallel to *pādūnān* above.
- *tan* ‘until’: OP *yātā*, NP *tā*; cf. also the related formations from IrshB *tantanā* ‘even’, *tanādī* ‘up to that time’.

Instances of word-internal *n* are the following:

- *angar* ‘charcoal, burning ember’: NP *axgar*.
- *bānz* ‘hawk, falcon’: Phl. *bāz*, NP *bāz* (Persian loanword, cf. Korn 2005: 217).
- *bānzul* ‘wing, feather’: Av. °*bāzura-* ‘arm’, Prth. *bāzur* ‘wing’ (Korn 2009: 204), NP *bāzū*.
- *brānz* ‘flames of fire, rays of light’: MP *brāz-* ‘shine, gleam’.
- *dant* ‘he/she/it gives’, 3rd singular present indicative of the verb *dayag* ‘to give’: Av. √*dā* (Korn 2005: 375), Phl. *dah-*, NP *dah-*. It seems that the *n* has been inserted by analogy with other verbs such as *ǰant* ‘he/she/it hits’ and *kant* ‘he/she/it does’ (cf. Gershevitch 1970: 171).
- *gwānz* ‘fathom’, in other dialects *gwāz*: Korn (2005: 279) considers it as a possible cognate of *bāz* ‘open’ and *bāze* ‘wing span’ in New Persian. Cf. Bal. *gwānzag* ‘cradle’, which can be swung in a certain span of place.
- *gwarānǰ* ‘ram’, in some other Balochi dialects *gurānǰ*, *γurānǰ*, besides *gwarag* ‘lamb’: MP *warrag*, NP *barra*.
- *hīnzak* ‘milk skin’, in some other Balochi dialects, e.g., SarhB *hīzzak*: MP *hēzag*.
- *kūnzag* ‘clay pot’, in some other Balochi dialects, e.g., SarhB *kūzzag*: NP *kūza*.
- *nīlānpar* ‘lotus, water-lily’: NP *nīlūfar*.
- *pānčāk* ‘leg, trouser leg’: NP *pāča*.
- *parandōšī* ‘two nights before’; similarly *parampōšī* ‘three days hence’: synchronically, this looks like a combination of *para* ‘before’ (cf. Bashkardi *para-ūš* ‘three days hence’) with *dōšī* / *pōšī*, but it could also be derived from Old Ir. (attested in OP *paranam* ‘earlier’) *parana-* ‘former’ (NP *paran* ‘yesterday’).⁵
- *pūnz* ‘nose, muzzle’, in many other Balochi dialects *pōnz*, in SarhB *pūzz*: Phl. *pōz(ag)*; NP *pōza*.
- *sinč* ‘form, style’: if this is related to MP/NP *sāxtan*, *sāz-* ‘to make, to form’, it is remarkable that the root (Ir. √**sāč* ‘pass’, Cheung 2007:324f.) does not otherwise show a present stem with nasal that could motivate the *n* in *sinč*. However, NP *farsang* ‘Persian league’ would be a parallel as a nominal derivative with a nasal from this root.
- *trānzū* ‘scales for weighing, balance’: Ir. **tarā* ‘balance, scale of balance’ + Av. √*az* ‘to convey, to conduct’ (Nyberg 1974: 191), Phl. *tarāzūg*, NP *tarāzū*.
- *tunn* ‘thirst’: Av. *taršna-* (Korn 2005: 365), MP *tišnag*, NP *tišna*. The *n* which here seems to replace the *š* seen in the cognate words is the result of an assimilation of *šn* > *nn* (and *šm* > *mm*) that is regular in Balochi (see Korn 2005: 126–128, Geiger 1891: 434).
- *turōngul* ‘hailstone’: NP has *tagargul* for this meaning.

A special case is presented by verbs whose present stem contains a synchronically unexpected *n* that however is shown to be inherited by the presence of parallel formations in related languages. Examples of this type include:

4 The semantic bridge would be via ‘dirt’; cf. Wakhi *rim* ‘dirt’ cited by Horn (1893: 142) as belonging to this root.

5 See Gershevitch (1964) for discussion of these and related terms.

- *sindag* ‘to break, to cut (transitive)’ alongside *sidag* ‘to break, to be cut’ (intransitive) and past stem *sist*; the *n* that from a synchronic point of view is inserted into the present stem is due to an inherited present stem, as shown by Prth. *sind-*, Sanskrit *c^hinad-* (Korn 2005: 87, 383, Cheung 2007: 326f.).
- *prinčag* ‘to press, to squeeze’ vs. past stem *prtk* seems to show a present stem with nasal as well, although the etymology is unclear.⁶

There are also a number of words with an unexpected *n* preceding word-final *-k*. Examples include:

- *mōrīnk* ‘ant’: NP *mūr/mūrča*;
- *muzwānk* ‘toothbrush’: NP *miswāk*;
- *pahlūnk* ‘flank’: Av. *parəsu-*, Phl. *pahlūg*, NP *pahlū* (Persian loanword, Korn 2005: 163);
- *rōtīnk* ‘intestine’, in other Balochi dialects also *rōt*: Av. **ruθuuar-*, MP *rōdīg*, NP *rūda* (Korn 2005: 378);
- *tihlānk* ‘push’: cf. the NP suffix *-āk* forming abstract nouns, e.g., *pōšāk* ‘clothes’.

A somewhat similar case may be seen in:

- *šīlānč* ‘dried buttermilk’: probably a derivative of *šīr* ‘milk’ (MP/NP *šīr* ‘id.’), although the second part of the word is not clear.

3.2 Absence of an equivalent /n/ in the same word in the Sarhaddi dialect of Balochi

There are interesting cases that differ with regard to the presence or absence of /n/ in different Balochi dialects, and it is not possible to discuss them all in comparison with IrshB. Here, one of the varieties from the Western Balochi dialect group, Sarhaddi Balochi (SarhB), spoken north of IrshB (in Khash and further to the north), will be compared with IrshB, which is a member of the Southern Balochi dialect group. The tendency to pronounce a vowel followed by /n/ as a nasalized vowel is less salient in Balochi dialects spoken further to the north than it is in IrshB; this holds especially for the dialect spoken in Sistan (Okati 2012: 200–213) but also for SarhB.

- SarhB *āpalōk* vs. IrshB *āpalōnk* ‘watery’;
- SarhB *dazz* vs. IrshB *danz* ‘dust’;
- SarhB *daragāzag* vs. IrshB *darangāzag* ‘to express, make clear’;
- SarhB *gahāssag* vs. IrshB *gahānsag* ‘to yawn’;
- SarhB *hassag* vs. IrshB *hansag* ‘ladle, scoop’;
- SarhB *hirēzz* vs. IrshB *hirēnz* ‘a type of weed’;
- SarhB *hōḍ* vs. IrshB *hōḍn* ‘hole, den’ (made by animals);
- SarhB *kizzag* vs. IrshB *kinzag* ‘to lean, to move’;
- SarhB *nigīzz* vs. IrshB *nigīnz* ‘lentils’;
- SarhB *nuruḍḍag* vs. IrshB *nurunḍag* ‘to grumble’;
- SarhB *sālōk* vs. IrshB *sālōnk* ‘bridegroom’;
- SarhB *syāhūk* vs. IrshB *syāhūnk* ‘charcoal’;
- SarhB *šizz* vs. IrshB *šinz* ‘itchy’;
- SarhB *šūzz* vs. IrshB *šūnz* ‘green’;
- SarhB *trīzz* vs. IrshB *trīnzok* ‘spray, small drop’.

⁶ Suggestions include **upa* with the root *rič* ‘leave’ (which has a present stem with *n* in Avestan, but does not seem to fit semantically) or the root **θra(n)č* ‘oppress’ (which is difficult phonologically); see Korn (2005: 138 note 325) for further details.

These cases are of various types. Again some concern the variation +/- *n* in suffixes preceding word-final *-k*, such as *āpalō(n)k* ‘watery’, *sālō(n)k* ‘bridegroom’, *syāhū(n)k* ‘charcoal’ (for this phenomenon, see Section 4.2).

An inherited *n* is likely to have been assimilated to the following consonant in the following cases:

SarhB *šūzz* vs. *šūnz* ‘green’ of other dialects is possibly related to Av. *axšāena-* ‘dark’ (cf. NP *xāšīn* ‘blue’, Pashto *šīn* ‘green’), in which case the then unetymological *-z* could have been adjusted to NP *sabz* ‘green’, though the exact motivation for this process is not easy to see.⁷

SarhB *kizz-* ‘lean, move’ contrasts not only with IrshB, but also with other dialects that have *kinz-*. Elfenbein (1990: 81, 83) compares *kēn-* ‘remove’ and *kins-* ‘shrink back’, which would indicate that the *n* is part of the stem and that SarhB shows an assimilation.⁸

Such an assimilation might be invisible (the *n* thus being lost) after long vowels, since there are no geminates after long vowels (with the exception of *ī, ū* in some dialects), cf. Jahani and Korn (2009: 248); SarhB *hōḍ* ‘hole, den’ might be a case in point (likely a variant of *kōḍ*, itself borrowed from Indo-Aryan according to Elfenbein 1990: 65, 81).

Though of unknown etymology, the following items also show an *n* in other Bal. dialects according to Elfenbein (1990), so they are probably also cases of a SarhB assimilation: *danz* ‘dust’ (Elfenbein 1990: 38), *hansag* ‘ladle’ (p. 65), *nurunḍ-* ‘grumble’ (p. 109), *šinz* ‘camel-thorn’ (p. 143).⁹

The remaining cases (viz. *gahāssag* ‘to yawn’, *hirēzz* (weed), *nigīzz* ‘lentils’, *trīzz* ‘spray’) are not clear etymologically, so it is not certain whether an *n* has been inserted in IrshB and SarhB has the more original form, or SarhB has assimilated a group of *n* + consonant, as seems to be the more probable assumption.

There are also cases of /n/ in SarhB where there is none in IrshB. SarhB *šīpānk* ‘stick’ vs. IrshB *šīpāg* shows a suffixal variation of the type mentioned above with the reverse dialectal distribution; SarhB *sēnzdah* ‘thirteen’ vs. IrshB *sēzdah* is analogous to other numbers containing *n*, e.g., *šānzdah* ‘sixteen’, see Section 4.2.

3.3 Unetymological /n/ in loanwords of non-Iranian origin

During historical contacts many words from different languages have been incorporated directly or indirectly into Balochi in general, and thus also into IrshB. As pointed out by Korn (2005: 19), it is not always obvious which words are to be considered as loanwords. The situation is “particularly complicated in cases like Balochi since the language which has exercised the strongest influence, namely Persian, is closely related, and there is not always a straightforward answer to whether a given word is ‘foreign (borrowed from Persian)’ or ‘genuine (inherited)’” (Korn 2005: 19).

Numerous loanwords in IrshB, however, are not of Iranian origin, but are borrowed from Urdu, Arabic, Brahui, English and other languages. Some of these show a secondary *n* in IrshB. The following cases can be considered examples of this phenomenon:

- *antar* ‘fragrance’: loanword from Ar. *atr* (also in NP);
- *balkēn* ‘maybe’: loanword from Ar. *balki* (also in NP, Korn 2005: 356);
- *bānkālēnk* ‘broad bean’: loanword from Ar. *bāqilā, bāqālī* (also in NP, Korn 2005: 353);
- *gaynz* ‘wrath, anger’: loanword from Ar. *yayz* (also in NP);

7 See Korn (2005: 113f.) for this word.

8 In this case, the verb is unlikely to be related to NP *xazidan*, Manichean MP *xez-* (Durkin-Meisterernst 2004: 371), for which Cheung (2007: 444) establishes an Ir. root “*xaz ?” that “may have been influenced by the (near-)synonym” **xaiz* ‘rise’. There is no present stem with nasal of either of these roots in the related languages.

9 This may also hold for *darangāzag*, which may be related to *darangāz* “(?) ‘less severe, painful’” (Elfenbein 1990: 40), though the semantic bridge is not easy to see.

- *hand* ‘land, area’: loanword from Ar. *hadd* (also in NP);
- *hanšuk* ‘spoon’: loanword from Turkic *qašūq* (also in NP, *qāšūq*);
- *kanjal* ‘a powder for beautifying the eyes, kohl’: loanword from Urdu (*kājal*, *kajjal*);
- *rand* ‘trace, effect, offspring’: maybe from Ar. *radd* ‘trace, refusal etc.’;
- *sannat* ‘a new and wonderful thing’: loanword from Ar. *san‘at* ‘industry, handicraft’ (also in NP); here, the *nn* surely is the assimilation product of *n*.¹⁰

4 Discussion

The data in Sections 3.1 to 3.3 present different cases of synchronically unexpected /n/. In the following we offer a discussion of the possible origin of /n/ in the data.

4.1 Inherited and possibly inherited cases of /n/

Present stems showing an infix *n* or a suffix with *n* are part of the verbal stem formation in Indo-European and Old Iranian (see, e.g., Hoffmann and Forssman 1996: 211–219; Brandenstein and Mayrhofer 1964: 71). Since this is no longer a productive process in Middle and New Iranian, the inherited instances of present stems with nasals are synchronically unpredictable from their respective past stems. Besides *sind-* ‘break’, inherited present stems of this type are found, e.g., in *čin-* ‘gather’ (past stem *čit*), *kan-* ‘do’ (past stem *kurt*).

There are also cases that may be inherited present stems with a nasal, even if they are not present in Persian or Balochi; *prinčag* ‘press, squeeze’ might belong to this category.

pōn ‘rotten’ and *rēn* ‘egg-laying period’ may be linked to this type. (There are present stems with nasals from these roots in other languages; see Section 3.1.) Alternatively, they might go back to nominal stems with suffix *-n-*, which are likewise productive in Old Iranian. It is not excluded that *sinč* ‘form’, if it is related to NP *sāxtan* (no present stem with nasal attested), belongs to this type, too, NP *farsang* being parallel in showing a nasal in a nominal derivative.

parandōšī ‘two nights before’ and *parampōšī* ‘three days hence’ (with assimilation) are likely to be composed with *paran* ‘yesterday’ attested in NP (see Section 3.1).

4.2 Unetymological /n/ by analogy

-ān, *-an* and *-ēn*

It seems that grammatical suffixes can be used analogically and be reinterpreted as having a specific semantics.

In words ending in *-ān*, e.g., *garmān* ‘summer’, *idān* ‘here’, *ōdān* ‘there’, the most likely explanation for the presence of *n* is that it is added by analogy with the plural oblique suffix *-ān*. Oblique case marking occurs in words with local or temporal semantics. Indeed, the ending is used in this way in, e.g., NP *šabāna* ‘at night’ or *šabān(e)-rūz* ‘a full day’, etc.¹¹ For *garmān*, the existence of the terms for seasons *zemestān* ‘winter’ and *hazzām* ‘season for planting trees’ might also have played a role.¹² In *guptān*, a plural reference may be implied if the needlework it designates is seen as being composed of multiple elements; for *nīlānpar* ‘lotus’, one might suspect either association by popular etymology to a plural element or, in fact, a derivation from a plural (maybe a reference to the leaves of the flower being plural). The motivation of *-ān* in *kasān* ‘small’ is not clear, however (vs. the comparative *kaster* and MP *keh*); analogy with *mazan* ‘big’ (comparative master) would rather give †*kasan*.

¹⁰ For other treatments of Arabic *š*, see Korn (2005: 63).

¹¹ Thanks to Thomas Jügel for drawing our attention to this phenomenon; he adds that adverbial uses of case forms are also seen in Arabic (accusative) and German (genitive), e.g., *tags* day.GEN ‘by day’, with the *-s* then being extended to *nachts* ‘by night’ (whose genitive would historically be *Nacht*).

¹² For terminology of seasons and timekeeping, see Parvin 2008.

The words *pādūnān* ‘at the foot end’ and *sarūnān* ‘at the head end’ seem to show two suffixes, the former potentially being one of the alternative oblique plural suffixes (originally belonging to stems in *-u*), to which *-ān* in the locative function just mentioned was added because *-ūn* had become obscure.

Likewise, words ending in *-ēn*, e.g. *bārēn* and *balkēn*, both ‘maybe’, could have been adjusted to the pattern of attributive adjectives and adverbs with the suffix *-ēn*.

The items with a quasi-suffix *-n* in IrshB *agan* vs. MP/NP *agar* ‘if’ and *tan* ‘until’ are possibly based on the forms *aga*, *tā*, *na* (also all found in Persian).¹³ The form *aga* seems to provide the basis for *agan*, *agān*, *āgān*, and *agāt*. The variation may perhaps be due to a parallel variation that is seen in *anga* / *angāt* ‘yet’ (cf. Korn 2005: 81 n. 33, 186, 216). As for *tan* ‘until’, there is also a variant *tān*, which might be an addition of a nasal or even a contraction of *tā ān*, cf. *tānki* from *tā ān ki* (Korn 2005: 215 n. 208). The etymology of *tan* is not quite clear, however (cf. Hasandust 2014: 793).

-ā/ē/ī/ō/ūnk

Suffixes in a long vowel followed by *-nk* are quite frequent (see also Mahmoudzahi 2016); our corpus includes *āpalōnk* ‘watery’, *bānkālēnk* ‘beans’, *mōrīnk* ‘ant’, *muzwānk* ‘toothbrush’, *pahlūnk* ‘flank’, *rōtīnk* ‘intestines’, *sālōnk* ‘bridegroom’, *syāhūnk* ‘charcoal’, *šīpānk* ‘stick’, *tihlānk* ‘push’. As pointed out by Rossi (1971), these suffixes have come about by reanalysis of *-Vnk* in inherited items such as *ādēnk* ‘mirror’, where the *-n-* is part of the inherited word (**ā-dayana-ka-*, cf. NP *āyina* ‘id.’) and the *a* preceding the suffix **-ka-* has been syncopated (Korn 2005: 165f., 168). An *n* may thus be inserted in an inherited suffix *-Vnk* on the model of such cases, and develop into a separate suffix.

Analogy in paradigms etc.

The unetymological *n* in the 3rd singular *dant* ‘s/he gives’ is likely to be motivated by *kan-t* ‘s/he does’ and *jan-t* ‘s/he hits’ (see Section 3.1).

SarhB *sēzdah* ‘thirteen’ vs. *sēzdah* in other Bal. dialects is analogical to *šāzdah* ‘sixteen’, due to similar phonological shape. The latter has an analogical *n* from its neighbouring (in the sequence of numbers) numeral *pāzdah* ‘fifteen’ (Horn 1893: 170), a process which seems to have happened in Persian before the entire numeral system had been borrowed into Balochi.¹⁴

4.3 /n/ arising from phonological processes

Some items can be explained as having undergone assimilation or dissimilation processes. The following changes resulting in an apparently unetymological /n/ can be observed in our corpus:

Assimilation: The assimilation of *šn* > *nn* is regular for Balochi as a whole, producing, e.g., IrshB *tunn* ‘thirst’ (see Section 3.1). This change is parallel to the assimilation of *šm* > *mm* (e.g. *čamm* vs. NP *čašm*, Av. *čašman-*); it is thus not exclusive to *n*.¹⁵ There is also the odd case of other types of assimilation, such as Ar. *san* ‘at’ > IrshB *sannat*.

Dissimilation: Ar. *hadd* > IrshB *hand*; and maybe *radd* > IrshB *rand*.

Other: The reason for the substitution of *n* for *x* in NP *axgar* ‘charcoal’ vs. IrshB *angar* is not clear. One might compare the nasalizing effect exercised by guttural sounds in some languages (such as intervocalic *h* yielding *ŋh* in Avestan in certain contexts).¹⁶

¹³ An assimilation to the Arabic adverb suffix (seen in common Persian examples such as *masalan* ‘for example’ and *avalan* ‘first’) is unlikely since *agan* and *tan* are also found in the Balochi of Pakistan, where Arabic adverbs in *-an* are uncommon.

¹⁴ Cf. Hübschmann (1895: 78), Geiger (1901: 216). See also Korn (2006) on Balochi numerals.

¹⁵ See Korn (2005: 126–128) for these changes.

¹⁶ We thank Thomas Jügel for this suggestion.

4.4 /n/ arising from phonetic processes

The phonological environment of those cases of /n/ that cannot be explained in other terms than true insertion is of particular interest for finding the mechanisms behind the insertion.

The insertion of an unetymological /n/ in words with more than one syllable often causes a change of syllable structure from an open syllable (C)(C)V to a closed one (C)(C)VC. It is possible that a preference for a closed syllable over an open one is what has got the process of /n/ insertion underway. This would then provide a motivation for an addition of a final *n* to monosyllables of CV structure.

Now the question arises: Why is /n/ the consonant chosen for insertion? Here one could point to the availability of nasalization of a vowel in some Balochi dialects (see Section 2). This nasal vowel can then be re-interpreted as VC.

To further strengthen the argument that syllable structure and re-interpretation of nasal vowels are the processes at work in insertion of /n/, it should be noted that there are no examples of unetymological /n/ word-initially. The data also show that insertion is very rare after a consonant, where nasalization of a vowel cannot be the operating phonological process. There is only one certain example of an unetymological postconsonantal *n* in the corpus (*grihn* ‘knot’, Persian loanword, see Section 3.1), and this is also one of the few examples where *n* is added in word-final position (for *agan*, *tan*, *pōn* and *rēn*, see Section 4.1 above).

Insertion of /n/ seems to be particularly frequent before a fricative, especially /z/, following a long vowel: *bānz* ‘falcon’, *bānzul* ‘wing’, *brānz* ‘rays of light’, *gwānz* ‘fathom’, *hūnzak* ‘milk skin’, *kūnzag* ‘clay pot’, *pūnz* ‘nose’, *trānzū* ‘scales’, *gaynz* ‘anger’. Less frequently, it occurs before /ʃ/ (*hanšuk* ‘spoon’) and before an affricate (*kanjal* ‘kohl’, *pānčak* ‘trouser leg’ and *šilānč* ‘dried buttermilk’, if the *n* here is unetymological); note that *gaynz*, *hanšuk* and *kanjal* are (presumably more recent) loanwords (see Section 3.3).

There are also examples of inserted /n/ before a plosive (e.g. *antar* ‘fragrance’, *bānkālēnk* ‘bean’, *gwarānđ* ‘ram’, *turōngul* ‘hail’).

All eight vowel phonemes in IrshB (/ā/, /a/, /ī/, /i/, /ē/, /ō/, /ū/, /u/) can be followed by /n/. However, when we remove the cases of /n/ that are inherited or due to analogy, it emerges that there are some restrictions. In inherited words, unetymological /n/ occurs only after long vowels, and there are clear preferences concerning the consonant that follows, namely, *z* and *g/k*. The latter might be related to the phenomenon of analogical suffixes (see Section 4.2). Indeed, the analogical cases of /n/ also prefer to follow a long vowel, with the exception of some cases of word-final *-an* and the verb form *dant*. Even in loanwords, unetymological /n/ after short vowel or consonant is rare.

Conversely, there seems to be evidence for a dissimilation of *dd* in loanwords, producing *nd*. It might play a role that *-nd* and *-nđ* are very common word-final clusters in Balochi. The preference for such a word-final cluster might also have contributed to the insertion of *n* in *gwarānđ*, *gurānđ* ‘ram’, the *-nd* of which (vs. *gwarag* ‘lamb’) is etymologically unclear.

5 Conclusion

This article is one particular case study, and more research is needed before it will be possible to draw more far-reaching conclusions about syllable structure and nasalization as the operating factors for the cases of unetymological /n/. The logical interpretation of this unetymological /n/ is that it has phonemic status, since /n/ is already a phoneme in IrshB. In many instances, unetymological /n/ will accordingly change the syllable structure from an open to a closed syllable.

It will be especially interesting to study this phenomenon also in dialects of Balochi where nasalization is either very weak or very strong, in order to see if the frequency of unetymological /n/ in such dialects varies considerably from that of IrshB. This type of study can also be useful for gaining more knowledge about universal phonological processes and syllable patterns, sound changes in Iranian languages, word-formation, and Balochi lexicology and dialectology.

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Abbreviations

Ar.	Arabic
Av.	Avestan
Bal.	Balochi
C	consonant
IrshB	Balochi of Iranshahr
MP	Middle Persian
NP	Persian
obl.pl	oblique plural
OP	Old Persian
Phl.	Zoroastrian Middle Persian (Pahlavi)
Prth.	Parthian
SarhB	Balochi of Sarhadd
V	vowel
\bar{V}	long vowel

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