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Adaptation of Loanwords by Saraiki Speakers

Abstract:

The study presents a basic analysis of loanwords adaptation process by Saraiki speakers. Loanwords from three languages are analyzed and results reveal that native grammar used different strategies for different languages. In one language the onset/initial CC is adapted while in the other the final CC is modified by Saraiki speakers. It is observed that if the loanwords structure is absent in native grammar, it is not adapted though it follows universal principles. Native grammar allows clusters on both initial and final positions but loanwords do not. The study also discloses the strange behaviour for different languages, Saraiki speakers used fix vowel to break the cluster of English loanwords but vowel harmony and gemination in Arabic loanwords. It is noted that loanwords grammar preferred to have CV and CVC syllables rather than clusters at margins. Apart from grammatical adaptation, prosodic structure of receiver is also maintained. In many examples Saraiki follows universal principles but sometimes presents its own way to adapt loanwords.

Key Words: Loanwords, Native Grammar, Restricted, *UG, Saraiki*

Introduction

Loanword incorporation is the process to 'borrow' words from one language to another. Gradually and slowly, loanwords undergo an 'adaptation' (Kang, 2011) process to match the structure of native language. In a multi-lingual environment, when languages come into contact, words interchange from one language to another. Haspelmath and Tadmor (2009), argue that no language in the world is totally lacking of loanwords. Since, loanwords in order to indigenize passed all the hurdles of phonotactics with respect to grammar, phonology and morphology. The loanword adaptation process often presents an overview of the specialties related to native grammar (Carson-Berndsen, 1990; Kawahara, 2008). Just like native grammar/phonology, loanword grammar is described under different theories like Constraint and Repair Strategies (Paradise, 1988) and Optimality Theory (Prince & Smolensky, 1993).

Loanwords are analysed in different disciplines of linguistics like, phonology, phonetics, morphology, and semantics and so on. However, these disciplines provide diverse reasons of adaptation and the theory of language change and historical linguistics is mostly based on loanwords (Kang, 2011). The loanword adaptation process reveals many aspects of native grammar which are mostly unknown to the native speakers (Ahn & Iverson, 2004; Holden, 1976; Hyman, 1970; Kawahara, 2008; Wetzels, 2009). Now the question is whether the loanword grammar is different from native grammar/phonology or loanwords adjusted according to the native grammar? If it is different from native phonology then

we need to think that from where does the pattern come from? In Saraiki we address such questions in this article while taking into account the loanword grammar.

This article is organised as follows: the next section briefly highlights the native phonology of Saraiki language which is the basic notion to understand the adaptation process from the donor to the receiver. Section

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3 is devoted to elaborate the loanword adaptation in details while having Optimality theory (Kager, 2004) as a tool of analysis where needed. The article is concluded in the last section.

Saraiki Phonology

Saraiki is basically originated from Indo-Aryan family and spoken in India and Pakistan (Bashir, Conners, & Hefright, 2019). Geographically, in Pakistan, Saraiki is spoken in all four provinces but majority of the people resides in southern Punjab. There are six dialects (Shackle, 1976) and this article is based on one of the dialects viz. central dialect. The numbers of consonants in Saraiki are 41 while vocalic inventory shows 14 vowels (Atta, 2019). Having four implosives and oral-nasal contrast of vowels is the unique quality of Saraiki language while in rest of the Indo-Aryan languages, only Sindhi shares these features. The figures show phonemic and vocalic inventory of the Saraiki language beneath.

| | Labial | Dental and alveolar | Retroflex | Palatal | Velar | Glottal |
|-------------|---|------------------------|---|---------------------------------------|--------------------------------------|---------|
| Plosive | $egin{array}{cc} p & b \ p^{h} & b^{h} \end{array}$ | Է | $\begin{array}{ccc}t&d\\t^{h}&d^{h}\end{array}$ | ք գ ք ^հ գշ ^հ | k g k ^h g ^ĥ | |
| Implosive | 6 | ď | | f | q | |
| Nasal | m | n | η | ր | ŋ | |
| Tap or flap | | ſ | t | | | |
| Fricative | F | S Z | | ſ | xγ | ĥ |
| Approximant | υ | L | | j | | |

Table 1. The Saraiki Consonant System (Atta, 2019)



Figure 2: Saraiki Vowel Chart

Saraiki Syllable Structure

Syllable is as important as other phonological constituents. It has special prestige in generative phonology though it was considered as a linear order in linear phonology. The word 'syllable' is an arrangement of phonemes within the sonority values. Words are divided into pronounceable chunks where every chunk is one syllable. Different theories regarding syllable structure are given in literature (<u>Clements & Keyser, 1983; Roach, 2000; van de Weijer & Zhang, 2008</u>). Here for Saraiki syllable structure 'Onset rhyme' (<u>Roach, 2000</u>) theory is used. According to this model, the central part or 'peak' of a syllable must have 'vowel' or most sonorous sound

with preceding 'onset' and follow 'coda'. However, onset and coda have possible sequence of phonemes (which are known as phonotactics).

Syllable structure varies from language to language with different sequences in different positions, i.e. follow different phonotactic constraints. In other words, the syllable structure of a language can be described by means of constraints. Some phonotactic constraints may be universal (e.g. it is unlikely that any language has syllables starting with 17 consonants), but some constraints are language-specific. For example, English allows three consonants in the initial position of the syllable, such as /spl/ in *splendor*. Note that this does not mean that any three consonants can fill the initial position (e.g. *lps- is not a possible onset). Similarly, the initial sequence is limited to only one consonant in the Japanese language (Kenstowicz, 2007): we might say that Japanese obeys a constraint against complex onsets (*CC). There are some other language-specific constraints which permit different clusters of consonants in initial or final positions. For instance, Russian permits the initial sequences of [fsl-], such as in [fslux] 'loudness', [pt-] as in [ptitsa] 'bird', while English disallows these clusters (Ostapenko, 2005). Every word must contain at least one syllable, but not every syllable is also a word.

Basically a syllable has two parts: in the traditional onset-rhyme theory, these are called 'onset' and 'rhyme' (<u>Roach, 2000</u>). The most sonorant part of the syllable is the nucleus, which is part of the rhyme, as mentioned above. The nucleus contains the most sonorant (vowel) sound. In the case of syllabic consonant, a sonorant consonant can be the nucleus, as in English 'little', a disyllabic word in which 'l' is the syllabic nucleus (<u>Wells, 2008</u>).

Saraiki is very rich in syllable types Saraiki has a wide variety of syllable structures, maximally up to CCVCC, e.g. [drəxt] 'tree' and [sust] 'lazy'. Of interest are disyllabic words with syllabic trills. The trills only occur after alveolar plosives (Atta, 2019).

| 'sotr | 'cousin' |
|--------|----------|
| '∯∧ndr | 'moon' |

However the onset cluster always follow sonority principle as for example, 'dr' is possible cluster while '*rd'. Likewise, on coda position CC follow the falling sonority like 'lm' but '*ml'. In the next section we will come to the point of interest of this article, i.e, loanword adaptation while keeping in mind the syllabic structure of Saraiki.

Loanword Adaptation in Saraiki

Since it is clearly mentioned above that no language in the word is lacking loanwords. Though, it is hardly noticed that one language borrowed different words from different languages synchronically but mostly from one/two languages spoken around. Here in case of Saraiki we discerned loanwords from more than two languages. One of the most important reasons is the multilingual context in which Saraiki is used. Urdu (Indo-Aryan) being the national language of Pakistan is widely used around the country and English is used in all official matters. Arabic is the religious language and has strong influence on both Urdu and Saraiki. However, the fact of interest is that apart from Arabic, a number of Persian vocabularies are an important part of Urdu language. Since Urdu is the indirect source of borrowing words to Saraiki. Thus, the loanwords from these three languages (Urdu, English and Arabic) are adapted and frequently used in Saraiki language. We discuss these loanwords in turn.

English Loanwords

The English words are adapted in Saraiki with some variations. Vowel insertion takes place wherever a cluster of fricatives + stops and stops + approximants in initial position is adapted in Saraiki. This satisfies a general constraint *COMPLEXcc. However, particularly in Saraiki this is limited to the clusters of some phonemes only as in its syllable structure CC is a legitimate cluster.

| | English | | Saraiki | Glosses |
|----------|-------------------|----|----------|---------|
| /skı | ıl/ is pronounced | as | [səkul] | |
| 'school' | | | | |
| | /stil/ | as | [səti:l] | |
| 'steel' | | | | |
| | /spun/ | as | [səpun] | |
| 'spoon' | | | | |
| | /pli:z/ | as | [pəli:z] | |
| 'please' | | | | |

Table 2. In OT Analysis, below a Tableau gives the Reasons of Adaptation of English Loanwords.

| Input: /sku:l/ | *COMPLEX-S+C | ANCHOR-L | MAX-IO | DEP-IO |
|----------------|--------------|----------|--------|--------|
| səku:l | | | | * |
| Kul | | | *! | |
| sku:l | *! | | | |
| is.kul | | *! | | |

*COMPLEX-S+C>>ANCHOR-L>>MAX-IO>>DEP-IO

Cross linguistically, to avoid complex structures (to avoid hiatus or CC clusters), languages either delete or insert a segment. Here in the case of Saraiki, when the English word "school' is adapted, it prefers to insert a vowel to break up the cluster rather than to delete a consonant within the clusters. Relevant in this respect is that CC clusters are legitimate in Saraiki but 'S+C' clusters are not allowed. So the cluster 'SK' is marked in Saraiki, and a markedness constraint *COMPLEX-S+C comes into play. Another possible output [is.kul] is also thinkable which satisfies high ranked constraints of above tableau but does not appear as the winner. Here, in this instance, another faithfulness constraint ANCHOR-L is fatally violated, which demands that the left edge in an input word is also the left edge in the output.

The above tableau shows that the output must contain all input segments. The faithfulness constraint DEP-IO is assigned a violation mark for every output that does not have an input correspondent, i.e. it forbids deletion. Thus, DEP-IO is also one of the faithfulness constraints which regulate the structure of the output. So, all correspondence constraints, LINEARITY, CONTIGUITY, ANCHOR etc., have a particular task of regulating the structure. If we take into account the role of sonority in clusters like S+stopat initial position then which reasons come into contact in case of Stop + 1? Though the cluster of 'pl' has no sonority violation mark but not accepted in Saraiki language. This is very strange to notice that such clusters are present in native grammar of Saraiki (/pli: t/). It can be said that such clusters are restricted though following sonoraity principle. So far in English loanwords, adapted in Saraiki language, we can conclude that these *words are adjusted according to the native grammar but unnecceary adaptation is also noted as in case of 'please'*. In the next section, loanwords from Arabic are elaborated.

Arabic Loanwords

Like English loanwords adapted by Saraiki speakers, the Arabic loanwords also go through some structural and grammatical changes. The list of Arabic to Saraiki loanwords is given below:

| Arabic | Saraiki | Glosses |
|--------|-----------|---------|
| /mʌɣz/ | [məɣəz] | 'brain' |
| /∫∧rm/ | [∫∧r∧m] | 'shame' |
| /fikr/ | [fik.kir] | 'worry' |

| /ʃukr/ | [∫uk.kur] | 'thanks' |
|--------|-----------|------------|
| /səbr/ | [səbər] | 'patience' |

The above list of words (and many others) is frequently used in Saraiki language. One remarkable thing is that coda clusters are not accepted by the borrowing language. Conversely, repair strategies in these words are adapted differently; no fixed vowel is used to break up the cluster; in some cases gemination also occurs. However, vowel harmony is noted consistently, this is absent in the repair strategy of 'onset' in loanwords borrowing from English. The English loanwords show the fixed vowel schwa in between consonants. Since our concern is to find out the reasons that drive vowels to harmonize. Some constraints are driven in OT to formulize the vowel harmony, some of them are: Alignment, Spreading and Agree. Early in OT, the Alignment constraint is used to regulate features. Later on, McCarthy and Prince (1993), extended this constraint by adding features that are associated with edges (right/left). Another constraint which helps to regulate the structure is the faithfulness constraint.

ALIGN-Right: 'for any feature present in right segment of word associated with the leftmost syllable of the word.'

IDENT-IO: 'input and output segments must have identical feature values'

In the Saraiki the CC on coda position is legitimate cluster while taking into account the sonority reasons. It means the constraint given below is high ranked in Saraiki syllable structure: SSP: 'syllable must follow sonority sequence principle'

| Ta | bl | e | 3 | |
|----|----|---|---|--|
| | | | | |

| Input: /fikr / | SSP | ALIGN-Right | MAX-IO | IDENT-IO |
|----------------|-----|-------------|--------|----------|
| ☞fikir | | | | * |
| fik | | | *! | |
| fikr | *! | | | |
| fikər | | *! | | |

The winner candidate in the above tableau shows vowels harmony to break cluster at coda position. Though, Saraiki allows clusters at coda position in native grammar but shows restriction while adapting loanwords. With reference to adapted loanwords (from English to Arabic), it is noted that loanwords phonology preferred to have CV and CVC syllables rather than clusters at margins.

Another interesting thing in the data from Arabic to Saraiki is that though it is strongly claimed in the literature see Kang. 2011 for details) that those structures go through variations which are unattested in native grammar but here the attested clusters (l+m and stop +r) also suffer when adapted in coda position. These clusters are given below:

| /∫∧rm/ | [∫∧r∧m] | 'shame' |
|--------|-----------|-----------|
| /fikr/ | [fik.kir] | 'worry' |
| /∫ukr/ | [ʃuk.kur] | 'thanks' |
| /səbr/ | [səbər] | 'patience |

The behavior of /r/ is different in loanwords and native Saraiki words though Saraiki has the same kind of cluster in its native phonology as given below:

| /pu. ţr/ | 'son' | (not a loanword) |
|----------|--------|------------------|
| /ʧʌndr/ | 'moon' | (not a loanword) |
| /su:tr/ | 'suck' | (not a loanword) |

In the above examples, /r/ is a syllabic consonant in the native phonology of Saraiki (Atta, 2019). But in loanwords it serves as the coda of the word, e.g. [fik.kir]. Likewise, the clusters /-lm/,/-rm/ and stop+ /r/ exist in coda position in Saraiki and are pronounced without any change (this is called unnecessary repairing by Kang (2011). But in Saraiki this repairing strategy is different from that presented by Kang. Comparatively, if native words and loanwords with coda clusters 'stop + r' are observed, while in native grammar, 'r' is syllabic only when it occurred after dental plosives while loanwords have plosives other than dental thus repaired.

| /ʃəlm/ | 'leech' | (not a loanword) |
|--------|------------|------------------|
| /vərm/ | 'swelling' | (not a loanword) |

However, when these coda clusters are adopted from other languages, insertion occurs and sometimes gemination occur to satisfy the grammar of native speakers. Let's look all these examples in the domain of OT. In the data, apparently, constraint (*COMPLEXcc) is obeyed at the cost of DEP-IO, while MAX-IO is also satisfied. One question is if this is the only way to satisfy this constraint. This could be achieved by inserting a vowel at the beginning of the word (/əskul/), like other languages of its family (Urdu, Punjabi) do. This indicates that the ALIGN-left constraint is equally important as the former one in Saraiki, which induces not to insert vowel in the beginning of word.

In case of coda clusters, different repair strategies are adopted compared to onset. The inserted vowel is harmonized with the preceding vowel and gemination is also observed; all of these involve 'retreat to the unmarked' (Kenstowicz, 2005). This means that the loanword grammar of Saraiki is more restrictive and allows fewer clusters in coda position as compared to the native grammar. These loanwords are not limited to onset or cods clusters; some other examples are given in the next section.

Urdu Loanwords

Since Urdu is the national language therefore, it has a strong influence over all indigenized languages of Pakistan. However, in some languages Urdu words are relatively more penetrated than others. Saraiki is one of those languages which have extensive Urdu loanwords in their vocabularies. Most of these loanwords are indigenized after being adapted. Such loanwords are adapted by using different repair strategies, therefore discussed in turn. Below is a list of Urdu loanwords which showed vowel deletion/shortening when used by Saraiki speakers.

| Urdu | | | Saraiki | | |
|------------|----|----|-----------|-----------|-------|
| /ka:.nõn/ | as | | [kə.nõn] | 'law' | |
| /a:s.man/ | | as | [əs.n | nan] | 'sky' |
| /fai.d̯a/ | as | | [fæ.d̯a] | 'benefit' | |
| /dza:.ved/ | as | | [dzə.ved] | 'memor | able' |

In the above examples the long vowel [α :] in the initial syllable reduces to a short vowel [ϑ] in Saraiki. Apparently, the reason is the absence of / α :/ in Saraiki; however, to opt for / ϑ / over / α / may be odd, since languages mostly substitute a non-existent sound by the closest sounds available. Here the target seems to be the preceding consonant, which has a closer place of articulation to / ϑ / than to / α /. The second reason may be found in the prosodic structure: in Saraiki there are no bisyllabic words in which the penultimate syllable carries more weight than the ultimate one, as illustrated below:

| /u.6al/ | 'boil' | (not a loanword) |
|----------|---------|------------------|
| /kʌ.ma/ | 'earn' | (not a loanword) |
| /mə.roţ/ | 'twist' | (not a loanword) |

These loanwords help to understand the prosodic structure in Saraiki, which does not allow two long vowels in a bisyllabic word. If there are two long vowels in a loanword, the initial vowel must be reduced or deleted. Often, vowel deletion occurs in order to avoid hiatus, in order to resolve, languages take different

measurements. Most common among all languages is the deletion of one vowel as in French see (Harris, 2011) for details). However, sometimes, for rhythmic purpose vowel deletion between consonants is noted. This process is called 'syncope'. In this process, vowel deletion at the edge of a word occurs mainly for stress sensitive purpose. Let's have some nouns from English i.e., *potato* and *chocolate*. In both words, syncope is targeted unstressed vowel in different positions i.e., the left most vowel in 'potato' and the second one in 'chocolate' are deleted in production. These trisyllabic words are then pronounced as bisyllabic (Bybee, 2003; Harris, 2011).

As discussed above, several loanwords from Urdu are used by Saraiki speakers, thus different repairing strategies are adopted. In the next list different sounds from loanwords are substituted by native sounds. The saraiki speakers used the sounds of their own language when pronounced loanwords. Although the process of substitution in loanwords adaptation mostly occurred to substitute those words which are absent or unattested in native grammar. As for example in Hawaiian English /b/ is substituted with /p/ (Kang, 2011), since it is absent in this language. Logically it sounds good if /p/ replaces /b/ in loanwords as they are closely related (sharing different features). However, the substitution of those sounds which are already attested in native phonology is strange. A similar situation is noted in Saraiki. In the examples below, /b/, /d/ and /g/ are replaced by implosives by Saraiki speakers in loanwords, even though these sounds are not only permitted but do exist in the phonemic inventory of Saraiki language (as given above).

| /pagəl/ | as | [pagəl] | 'mad' |
|----------|----|---------|---------------|
| /bəkri/ | as | [6əkri] | 'goat' |
| /bas/ | as | [6AS] | 'enough' |
| /rəbəţ/ | as | [rəɓər] | 'rubber' |
| /d̯ad̪a/ | as | [dada] | 'grandfather' |

In Saraiki, Urdu plosives are changed into implosives in different words (but not in every word); implosives are considered marked because they are less frequent and more complex compared to stops or other sounds at the same place of articulation (e.g. look up in (Maddieson, 1984). Though, it is an 'unnecessary' repairing strategy but it also has some background links of speakers i.e., UG and social factors. It seems that the imprint of implosive features is stronger than plosives in the UG of speakers which make implosives perceptually more audible. If it is something related to default setting of UG (Broselow & Finer, 1991), it is assumed that implosives stand afore plosives in the grammar of Saraiki language. It is hypothesized that language in substitution process preserves the contrastive specification feature which native grammar determined (Herd, 2005). So implosives because of its specification are adapted over plosives in Saraiki.

In the above discussion it is noted that a difficult sound is pronounced instead of relatively easier one. However, sometimes in substitution process, the Saraiki speakers used relatively more lenient sound. Phonologically this process is called lenition. Lenition means 'softening', and refers to a process in which a less sonorant sound is changed into a more sonorant one. There can be different kinds of lenitions as explained by <u>Gurevich (2011)</u> 'degemination', deaspiration', 'spirantization' 'debuccalization', 'devoicing' and 'voicing'. All these processes entail to reduce some articulately efforts. In Saraiki, some of these processes are frequently observed in urdu loanword. Illiterate speakers of Saraiki change the actual pronunciation e.g. by changing stops into fricatives, while educated people mostly use these words as they are:

| /vəqț/ | as | /ʊəxt̯/ | 'time' |
|--------|----|---------|-----------|
| /mulk/ | as | /muləx/ | 'country' |
| /Juma/ | as | /zuma/ | 'Friday' |

Though devoicing in coda position is very common in the languages of the world (e.g. Dutch, Hebrew), in Saraiki loanwords adaptation, sometimes devoicing is also noted in medial clusters. Consider the examples below:

| /dʒəldi̯/ | as | /dʒəlti/ | 'hurry' |
|-----------|----|----------|------------|
| /∫æd/ | as | /∫æţ/ | 'probably' |

The most common process of lenition is debuccalization, in which /s/ change into /h/ or glottal stop. Like in Toba Batak, an Austronesian language, voiceless stops change into glottal stop (Hayes, 1986). In Saraiki, /s/ in coda position changes into /h/ in different loanwords. The examples below illustrate the process:

| /kəpas/ | as | /kəpah/ | 'cotton' |
|---------------------|----|---------------------|----------|
| /g ^h as/ | as | /g ^h ah/ | 'grass' |
| /p ^h əs/ | as | /pʰəĥ/ | 'stuck' |

In the above examples, different loanwords go through different processes of lenition. This process usually favors the perceptual prominence of sounds. This is a universal principle that some features are inherently more salient, such as [stridency] and [continuity] (<u>Steriade, 2001</u>) than others. Saraiki, in this respect, follows the universal principle of loanword adaptation. The other processes of lenition like debuccalization and devoicing prefer unmarked structures over marked ones. It will not be wrong to say that all these process in loanword grammar occurred within the domain of universal principles. Apart from the role of native grammar in prosodic structure, adaptation as perception in English loanwords and default setting of UG plays a strong role in loanword adaptation in Saraiki.

Conclusion

The process of loanword adaptation has played an important role to understand the role of native grammar. The adaptation process presents a rich empirical ground for the studies of language learning theories. The native and loanwords grammar can be clearly captured in the adaptation process of loanwords. The present study also elaborates that it is not only the native grammar that is responsible for adaptation process rather some unnecessary repairing strategies are adopted for loanwords by Saraiki speakers. At the same time the adaptation process is directly influenced by some extra grammatical factors such as Orthography and the source and context of borrowing. In the case of Saraiki, loanwords are mostly adjusted according to the native grammar, however sometimes a strange behaviour of native grammar is noted in the adaptation process. It is noted that the loanword grammar of Saraiki is more restrictive as compared to the native grammar. This eccentric way of adaptation might be because of default setting of UG or something unidentified, this needs further investigation.

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