Metathesis in Balochi

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Abstract

This paper aims to find out phonological complications in Balochi relevant to metathesis. Data for the research have been collected from daily conversation, books and Balochi dictionaries and have been analyzed through Feature Geometry. This study identifies CC (consonant – consonant) metathesis. It highlights the behavior of different phonemes that causes metathesis to occur. Phonemes with weaker acoustic cues and those with strong acoustic signals compete with each other for a better position in a syllable. The clusters that are not accepted by the language grammar adopt a reverse sequence through this process. In addition, stress and onset requirement also are factors that play significant role in metathesis in Balochi.

Keywords: Balochi, Makurani, Metathesis, Phonology, Rakhshani.

Introduction

The term Metathesis is a Greek word that refers to reordering of segments. The following example shows metathesis in Balochi in which fricative exchanges its position with labial stop. /wapsag/ >[waspag] 'to sleep'. As Thompson and Thompson say, the etymology of this word is related to the Late Latin word "metatithenia" meaning 'to phrase'. The word has two parts: "Meta" which means "beyond/over" and "tethenia" which means 'to replace'.[1] Metathesis, in Hume's opinion, is "a term used in linguistics to refer to the transposition of elements in a word or sentence".[2] Metathesis is a phonological process in which two segments/phonemes exchange their places. Metathesis is a term that represents the transposition of two elements in a syllable or sentence; sometimes we expect the order to be 'XY' but we find it in a reverse form YX.[3] She further argues that it is different from

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other phonological processes because of its irregularity and unspecified nature. Still, it is not perfectly known that why metathesis occurs cross linguistically. In different languages, it has different causes. Kiparsky differentiates assimilation from Metathesis in that the former is related to production (articulation) and the later process belongs to perception (acoustics).[4] Metathesis is a phonological process. There are many other phonological processes as well, like deletion, insertion, assimilation, dissimilation, etc. These phonological processes occur abundantly in world languages. The basic target behind most of these processes is a change from marked to unmarked phenomena. In simple words, it is a medium through which speakers make the "utterances" easier. In metathesis, segments change their order to replace an excluded and disfavored sequence with an accepted one, a marked pattern is replaced with an easy pattern and uncommon order with a common one and so on. Though it is a fact that this process occurs infrequently yet it occurs approximately in all languages of the world. For a complete explanation of metathesis, the grammar of a specific language requires close observation. Metathesis has remained a myth for linguists in the second half of the previous century. Many linguists around the globe strived hard to resolve this anomalous linguistic situation, but could not approach the actual reasons behind. Most of them even compelled to declare it a non-linguistic event. It was difficult for them to find out why speakers change order of segments. Osthoff and Brugmann are among those linguists who displayed a disregard for metathesis.[5] They were of the view that this process is "incomprehensible", because metathesis, according to them, happens in separated forms and it does not influence other forms of the same sort. In simple words, a cluster of 'KS' is reinterpreted as 'SK' in a word of a language but it is pronounced as 'KS' without changing the order in another word of the same language. This convoluted nature of metathesis left the early linguists without any rational argument about metathesis. The first linguists, who acknowledged metathesis as a phonological process, were Chomsky and Hale.[6]

Now it is established that metathesis is a phonological process and it comes under linguistic research. However, until 1990, linguists were agreed on a single point that metathesis is an irregular process and formulation of rules and regulations for this process is impossible. So metathesis was disregarded as having "notorious irregularity". Later on, linguists like McCarthy, Flemming, Hume, Blevins and Garret adopted a new way to

unearth the causes active behind metathesis in a proper way. In modern days, metathesis is considered as a regular phonological process. The current research studies metathesis in Balochi language.

Literature Review

This section comprises a detailed discussion about types and reasons of metathesis in world languages. Moreover, it tries to bring forth the opinion of different linguists about metathesis.

Types of Metathesis

Four pathways are operative in Metathesis.[7]

i). Compensatory Metathesis
ii). Perceptual Metathesis
iii). Co-Articulatory Metathesis
iv). Auditory Metathesis

These types are defined one by one briefly in the following paragraphs**.**

Compensatory Metathesis

In compensatory metathesis, a vowel in an unstressed syllable loses its quality. It is because of the existence of a prominent vowel in a stressed syllable that draws the quality material of the weak vowel in unstressed syllable. In a pattern of V1CV2, the articulatory gesture for V2 may start during V1. At the same time, weak vowels yield their features to the vowels of stressed syllables due to anticipatory co-articulation and stress, as Moskel calls this behavior "causing temporal shifts of V2 into V1".[8] Finally, vowel apocope (deletion of final vowel in a syllable) paves the way for metathesis to occur. For an indefinite time the weak vowel remains as a schwa and with the passage of time it disappears finally. This weakening and diminishing process results in Metathesis. Ahmadkhani shows this development as under.[9]

Right edge: V1CV2>…V1V2CV2>…V1V2C

Left edge: V1CV2…>V1CV1V2…>CV1V2

Blevins and Garret collect examples from Rotuman in which a vowel on the syllable margin loses its quality and duration in presence of a syllable medial vowel.[10]

(1)

/futi/	*[fyt]*
/tiko/	*[tiok]*

Perceptual Metathesis

Perceptual metathesis is a source supporting transposition of segments. There are features like Rhoticity (quality of being rhotics: variant phonemes related to /r/ are called rhotics), Lateralization, and Roundedness which bear extra long duration. The extra long duration of a feature sometimes even surpasses a syllable or string of syllables. In such contexts, one sort of confusion is created, as the listener cannot judge the proper location of phonemes. Some features are long in duration as compared to others.[11] As a result the phoneme that is adjacent to a phoneme that bears elongated feature, changes its place and sometimes a non-local change takes place. Ahmad khani[12] quotes such examples from *Cayuga* by Foster (1982)[13]:

(2)

(a) /kahwista?eks/	[khawisd?aes]
(b) /akekaha?/	[agekhaa?]

The same change takes place in Rendille where /r/ exchanges its place with velar stop.

(3)

(a) /agar-te/	[arg-e]
(b) /ugar/ (singular)	[urg-o]

In both types of examples, aspiration and rhoticity of /h/ and /r/ reorder the sequences of phonemes.

Co- Articulatory Metathesis

For co- articulatory metathesis, Blevin and Garret[14] examined four languages: *Klamath, Wiyot, Aklanon, Mikolese*. Their data show metathesis of Labial-Velar stop clusters like PK>KP. Actually, there are segments that are adjacent and aligned. In a sequence like C1C2, the final consonant is perceived to be produced before the first one and sequence reverses as C2C1. It is difficult to recover the place of articulation for each consonant. Burrow and Bhattacharya collect some examples of velar /k g/ + labial /p b/ in Pengo language.[15] Where the intensive-frequentative or plural suffixes /-pa/ and /-ba/ interact with velars as a result of which metathesis occurs. It is relevant to mention here that metathesis

does not take place when labials make a cluster with consonants other than velars. This can be seen in first two examples reproduced from Burrow & Battacharya.[16]

(4) Pengo velar + labial metathesis

a. i.	/gru:t-pa-/ > [gru:t-pa-]	'fell'
ii.	/huz-ba-/ > [huz-ba-]	'roast'
b. i.	/drik-pa-/ > [dripka-]	'break'
ii.	/ku:k-pa-/ > [ku:pka-]	'call'
iii.	/ʔa:kba-/ > [ʔabga-]	'sacrifice'
iv.	/tog-ba-/ > [tobga-]	'be split'

Hume considers that metathesis examples collected by Blust (1979)[17] in Cebuano, are co-articulatory in nature. [18] She is of the view that sometimes in CC (consonant + consonant) metathesis; place of articulation plays a major role. Co- articulatory metathesis in Cebuano is different from that of Pengo. It happens in cases when a coronal stop or nasal is followed by a labial or velar, because of vowel syncope the segments reverse their order. The following examples show this.

(5) Cebuano metathesis of coronal + non – coronal clusters

Stem	suffixed form	
i. /lutuk/	[lukt-un]	'put the finger in'
ii./gitik/	[gitk-a nun~gikt-a nun]	'ticklish'
iii./atup/	[atp-an ~ apt-an]	'roof'
iv./inum/	[imn-a]	'drink'

The other word /lakat/ 'walk' does not change its order, as the sequence is already appealing. So the suffixed form /lakat-un/ remains intact.

This co-articulatory metathesis emerges because of 'overlapping'. [19] This changes the sequence from 'TK' to 'KT'. In general preference coronals appear second in a cluster.[20] On the other hand, some examples in languages like Greek where anterior phonemes are preferred are followed by non-anterior in metathesis.[21]

Auditory Metathesis

The fourth pathway that leads to metathesis is of Stop - Sibilants, where the a periodic noise (hissing sound) distracts the listener; as a result, he/she perceives it metathesized. This kind of metathesis is bi-directional and exists in West Saxon dialect of old English.

(6) *SK > KS*
KS > SK

Indeterminacy

Hume offers some other reasons behind transposition of segments. She considers indeterminacy and perception mandatory for metathesis. For metathesis to occur it is necessary that listener must not determine which segment has been uttered first. In simple words, for metathesis to occur there should be some misperception on behalf of the listener. We can understand her point from the following examples.

(7)
/ɬ'skjuːz/ > [Is'kjuːz]
/desk/ > [deks]

In the above given examples, a listener is not sure which phoneme has been spoken first, whether it is velar stop or sibilant. The metathesized (linearity change occurring in a word or syllable) sequence or pattern, as Hume says, must be attested in listener's native language. Because the listener is not neutral while thoroughly understanding and mapping out the acoustic signals that s/he receives from a speaker. S/he will parse those signals according to her/his own language pattern. Experience with sounds and sound sequence facilitates identification of order.[22]

However, indeterminacy is a factor that creates a favorable atmosphere for metathesis to occur. In addition, it is the experience of a listener/speaker that helps him/her in identifying a sound or sound sequence. For identification of a sound, context and neighboring sounds are important. For example, a stop is clearer in prevocalic position than postvocalic regarding its release burst. Its cues are more perceptible prevocalically (consonant occurring before a vowel) than at preconsonantal (sound occurring before a consonant) position.[23] Due to existence of a phoneme (specially a consonant) adjacent to stop, the stop's acoustic cues vanish. 'In prevocalic position, burst release of a stop exists in all languages but on other positions, it varies language to language.[24] For instance, Koreans can produce it with burst in onset position but not on final position and on the other hand English speakers have the burst release in phrase initial position but it is optional for them on final position. In contrast to stops, fricatives are not dependent on context in which they occur because of the distinguished

features that a fricative bears.[25] Furthermore, for identification of a sound it should be kept in mind that how much a sound is prominent. Some sounds, for instance Zulu clicks are naturally strong and any listener regardless of age and L1 can easily identify those clicks.[26]

Another feature that contributes in indeterminacy is suppression of a sound's signals or cues. How are the cues of a sound lessened? It is because of auditory/acoustic similarity between sounds that makes the listener incompetent to judge the order of sounds.

Attestation

Another condition for metathesis is of attestation.[27] It has been proved by examining the perception of order and a close observation of patterns resulting after metathesis. It is the process of metathesis through which uncommon patterns/sequences are replaced by common or familiar ones.[28, 29] The reordered sequence and direction of metathesis depends upon a language's sounds, further the reordered clusters usually formulate an attested form, for example, if a sequence (VhcV) is the only attested sequence in a language; the metathesized form follows the same sequence. In a consequence of transposition, the sequence will not be (*VchV).

In the following examples, suffix [mak] and [tak] change their order in some contexts but remain intact in some contexts.

(8) Mutsun (nominal thematic plural suffixes [-mak] and [kma]

i./ru:k/	[ru:-mak]	'string'
ii./hu:s/	[hu:s-mak]	'nose'
iii./rukka/	[rukka-kma]	'house'
iv./sinni/	[sinni-kma]	'child'
v./relo/	[relo-kma]	'clock'

(9) Locative suffix [tak] and [-tka]

i./ʔurkan/	[ʔurkan-tak]	'mortar'
ii./lo:t/	[lo:t-tak]	' mud'
iii./si:/	[si:tka]	'Water'
iv./pa:rani/	[pa:rani-tka]	'hill'
v. /rukka/	[rukka-tka]	'water'

In the nominal thematic plural suffix and locative suffix examples, first two examples of both types resemble each other, but in later two examples suffix /-mak/ changes into /-kma/, it does not follow the pattern the locative suffix follows. Following the locative

suffix /-mak/ should change itself as /-mka/ instead of /-kma/. It is not the issue that the sound sequence /-mka/ does not exist in this language, it does exist but is less frequent than the unexpected or what Hume says, the 'so called, non-optimal' sequence /-kma/. To support her argument, Hume refers to Mutsun labial/velar metathesis. As it has already been mentioned, that prevocalic position is the most favorable position for a stop. Sonority also does not prefer a sonorant + obstruent cluster on onset position. An onset with a sequence [kl] is more optimal than a sequence [kt], and cluster [kt] is better than [mt] for a well-formed syllable.[30] So the sequence /-kma/ is suitable than its expected form /-mka/. However, metathesis in Mutsun brings a surprising result by placing a stop before a consonant.

What types of sequences do not become target of metathesis? Hume is of the view that sequences which do not bear much indeterminacy and have ample information regarding the sound signals and orders and weaker in cues are usually affected by metathesis. The previous discussion proves that the outcome of metathesis is a sequence that is perceptually clear and already attested in that language. Another point becomes clear from the discussion that 'non-optimal sequences which emerge because of metathesis, are less frequent, uncommon and less attested. Metathesis is a process that does not always occur with a purpose or reason behind.[31] For example, when there is a sequence emerging because of metathesis and seems to be 'non-optimal', this suggests that the original form or input should be in a better sequence than the metathesized one. If this is so then what is the reason of metathesis to occur, as it has been argued that metathesis plays a role to stable sequences or sound patterns. What is the need of a non- optimal candidate resulting in metathesis, as a better sound sequence already exists in shape of input? It (metathesis), as Hume says, is not teleological.

The current study aims to analyze patterns of metathesis in Balochi. It particularly addresses the following research questions.

Research Questions

i). What are the possible reasons behind metathesis in given data?
ii). Is metathesis is a regular process in Balochi?
iii). Does metathesis bring other changes besides disturbing the linearity in Balochi?
iv). What type of metathesis occurs in Balochi?

Data Analysis and Discussion

This section analyses the data that have been collected through formal/informal conversations in Balochi. It covers the discussion about possible reasons behind metathesis and tries to bring forth dialectical variation in Balochi. The chapter revolves around CC (consonant-Consonant) metathesis. We have further divisions like Local metathesis and Non-Local metathesis. We find both inter language and intra language examples in the data.

CC Metathesis

CC metathesis occurs in order to pronounce "unpronounceable" clusters.[32] Furthermore, the less sonorous segments occupy syllable margins and sounds that are more sonorous usually stand next to nucleus. Moreover, consonants try to acquire a position in a syllable where their acoustic cues are prominent.

Local Metathesis

In this type of metathesis, two adjacent consonants exchange their places to form a new word. Like other world languages, Balochi has such kind of metathesis where sibilants (phonemes with an a periodic, and periodic hissing sound) play a vital role in metathesis.

Sibilants

As mentioned above sibilants are the phonemes having a hissing sound in their production. In the following examples, Balochi speakers (of different dialects) reverse the order of segments whenever a sibilant follows a stop. The symbols (/ / and [ ]) used for transcription denote the underlined representation and surface representation respectively.

(10)

(a)

	Input	Output	Gloss
i).	/ɖ̠rəp.ʃəg/ (M)	[ɖ̠rəʃ.pəg (M)]	'to spark (of beauty)'
ii).	/ʤ̠ək.səg/ (M)	[ʤ̠əs.kəg] (R)	'tremble'
iii).	/wəp.səg/ (M)	[wəs.pəg] (R)	'act of sleeping'

(b)			
i).	/tæk.si:/ (ENG)	[tæs.ki:]	'taxi'
ii).	/nʊk.sa:n/ (UR)	[nʊs.ka:n]	'loss'
(c)			
i).	/ʈrʊpʃ/ (M)	[ʈrʊʃp] (R)	'sour'
ii).	/bʊkʃ/ (M)	[bʊʃk] (R)	'hair'
iii).	/aps/	[asp]	'horse'
(d)			
i).	/ ʈənz/ (UR)	[ʈəʒn] (B)	'irony'
ii).	/bəxʃ/ (PER)	[bəʃk] (B)	'to forgive'

In (10a & b) metathesis is taking place in more than a single syllable. In tautosyllabic examples the first word /trʊpʃ/ (10c) has its origin from Pahalvi. It is exactly the same word in Pahalvi that has been reversed in Rakhshani dialect.

In all metathesized versions, speakers prefer to pronounce the sequence as fricative + stop. Whether it is a bi/trisyllabic word, where this sequence (fricative + stop) is preferred in word medial position or in a tautosyllabic word this change occurs on final position. Another idea can be projected that whenever linearity is violated in sibilants metathesis in Balochi, in a cluster of stop – fricative, stop occupies onset position that is a favorable position for a stop (10a & b). However, this claim is restricted to words with more than one syllable.

In case of (10a & b) it is mandatory to provide the stop /p,k/ coda position to retain SSP (Sonority Sequencing Principle). Moreover, all examples belong to auditory type, in which a periodic sound of sibilants causes a change in the order of consonants.[33] It is because of the long duration hissing sound that distracts the attention of listener to misperceive the sound sequence.

In Balochi, we have attested pattern for both of the last complex clusters /nz/ and /ʒn/in (10d). The following words exist in Balochi language. Some attested words for both of the consonant sequences are /honz/ (an animal), /ponz/ (nose), /dənz/ (dust) for /ʈenz/ and /gʊʒn/ (hunger), pəʒm (silk), rʊʒn (light) for /ʈaʒn/ respectively.

Kang quotes Peperkamp's theory of "unnecessary repair", which refers to changes which are unnecessary.[34] For instance, some sound sequences and sounds exist in a language, yet these sounds and sound patterns are accepted with some changes. Kang quotes examples collected by Golston where in Hmong, /ʒ/ in French loanwords is substituted with /j/, inspite of the fact that /ʒ/ exists in Hmong's phonemic inventory. [35]He further quotes Kang

in this connection that though Korean language do have coronal stop + w cluster in its native cluster yet the English /tw/ cluster is pronounced with a vowel epenthesis to break the cluster. In Korean language the word'*Twin'* is pronounce as*[tiwin]* not*[*twin]*.[36]

Above given attested sound sequences for both /*nz/* and /*ʒn/* at the coda position are attested in Balochi. But /ʈənz/ is reorderd as /ʈəʒn/. It can be considered as an "unnecessary repair".

If both sequences are attested then we have to compare the frequency of the sequences. It is observed that that the sequence /nz/ is more frequent than /ʒn/. It is a coincidence or an effort made by language to make the input its own by changing the linearity. It can be seen in other types of examples as well. The Persian word /ʈez/ 'fast' is pronounced as [ʈenz] in some dialects and /ba:z/ 'eagle' is with a slight change as [ba:nz]. The purpose of nasalization is an adjustment of loanwords in language's own corpora. Because Balochi has voiced fricative /z/ as simple coda in several words, there is no logical reason of nasalization as in a consequence coda position turns from unmarked to marked. But interestingly language tolerates this.

[h] Metathesis

In Rakhshani dialect, speakers pronounce the (past form of the verb) with /h/ followed by a coronal /ʈ/. On the other hand Makurani speakers especially of Kechi dialect substitute /h/ with /k/ and then metathesize it.

(11)

(a)	Rakhshani	Makurani (Kechi)	Gloss
i).	/ahʈ/	[aʈk]	's/he came'
ii).	/gehʈ/	[geʈk]	'insert'
iii).	/rehʈ/	[reʈk]	'drained'
iv).	/mehʈ/	[meʈk]	'sucked'
v).	/pahʈa:/ /paʧiʈa:/	[paʈka:]	'cooked'
vi).	/sahʈa/	[saʈka]	'appealed'
vii).	/sohʈa/	[soʈka]	'burned'
viii).	/ʈəʧiʈa:/ /ʈəhʈa:/	[ʈəʈka:]	'ran away'
(b)			
i).	/ʃub.ha/ (UR)	[ʃoh.bo] (B)	'doubt'
ii).	/məz.həb/ (PER)	[məh.zəb] (B)	'religion'
iii).	/sub.ha/ (UR)	[sohb] (B)	'morning'
iv).	/mɛr.hu:m/ (UR)	[məh.ru:m] (R)	'blessed'

In Kechi dialect, COR /ʈ/ precedes DOR /k/. A coronal in this environment is suitable in second position, e.g. /kʈ/ not /ʈk/.[37] Having this point in our mind, we are in a position to say that Rakhshani dialect follows this rule. The origin of (3), (5) and (7) in 11a examples, is from Pahlavi, we have words /rexʈan/, /poxʈan/

and /soxt̪an/ respectively. The development of these words can be shown with the sequence like, soxt̪an > soht̪a , sokt̪a > sot̪ka. The speakers of Rakhshani dialect substitute /x/ with /h/, but in Makurani (kechi) speakers metathesise it, with a careful observation we can assume that Makurani (Kechi) dialect might have once substituted /x/ with /k/ then reordered it. The origin of other examples is unknown. However, with the help of the origin of these three words we may build an idea that other examples may have /x/ sound preceding coronal /t̪/. Cross-linguistic research confirms metathesis in a cluster of + anterior – non anterior. Due to overlapping of coronal (+anterior) the order reverses as non anterior - +anterior. On the other hand, there are sufficient examples in world languages in which +anterior is preferred to be followed by a non-anterior after metathesis. But interestingly, Makurani dialect does not always behave like it does in examples 11 (a). There are nouns like /t̪əxt̪/ 'throne or bed', /bəxt̪/ 'luck' which are not metathesized in Kechi dialect but /x/ is substituted with glottal fricative /h/ or velar /k/. It is pronounced as /t̪əht̪/ or /t̪əkt̪/ or /t̪əst̪/ and /bəht̪/ or /bəkt̪/ respectively not /*t̪ət̪k/ and /*bət̪k/. Data show that Kechi dialect metathesizes verbs with a cluster of /ht̪/ or /xt̪/ but it does not disturb the linearity of sounds in nouns with the same sequence.

In Balochi, /x/ is a velar fricative and /h/ is a glottal fricative. Speakers of Balochi either substitute /x/ sound with /k/ or /h/ in both of Makurani and Rakhshani dialect. The place of articulation of both of the phonemes is nearer to the place of articulation of /x/.

The fricative [h] is a very weak consonant. Although, it is a fricative but in terms of its behavior, it is different from other fricatives. In many languages, it behaves like a semi-vowel. Therefore, it does not qualify for onset position that demands replacement with a strong phoneme on the onset. The demand is met as a result of metathesis. For the last case, we can say that principle of sonority demands low sonority consonants on margins and high sonority phonemes on nucleus position. Thus, [b] is more suitable for coda as final sound than [h].

Non Local Metathesis

In non local metathesis two non adjacent phonemes exchange their places.

Nasal (coronal) + Nasal (labial) Metathesis

Nasal metathesis is a common phenomenon in world languages. In Balochi, nasals with different place of articulation exchange their places. In the following examples, though both labial and coronal nasals swap with each other, yet they remain on onset position even after being reordered. Then the question arises, what is the purpose of metathesis as both phonemes already have the same position in the input. With a careful observation, we can identify that it is the stress requirement that is active for the changes in these examples. Balochi is a quantity sensitive language. The ranking for language acquisition on suprasegmental level or Markedness on prosodic level is *DOR-**'σ**>> *LAB-**'σ**>> *COR-**'σ**, Stress in the following inputs lies in the syllables that have labial nasal on onset position. The Ranking of natural classes demands coronals to be on onset of stressed syllables as coronal sounds are easier and adequate to remain on a position in syllable where stress lies. In the following examples, the stressed syllables are highlighted bold.

(12)

Input	Metathesis	Meaning
i). /dər.mlja:n/ (UR)	[dər.nlja:m] (B)	'in between'
ii). /mlja:n.dʒi:/ (PAH)	[nlja:m.dʒi:] (B)	-do -
iii). /mlja:n/ (PER)	[nlja:m] (B)	- do -
iv). /ə.ma:.nət/ (UR)	[ə.na:.mat](B)	'custody'

Conclusion

Various types of metathesis that have been discussed in this study are CC and CV metathesis. Further subtypes of CC metathesis that occur in Balochi are local and long-distance metathesis. Metathesis in Balochi occurs mostly to maintain sonority sequence, for syllable well formedness and to follow Syllable Contact Law. Sonority plays a central role in forming a favored cluster and an admissible syllable structure. In some examples, we have stress that plays a role to define the language's stress pattern.

Attestation is considered as one of the key factors in metathesis, but in case of Balochi we find some patterns that undergo change even already attested in the language.

Moreover, in Balochi, metathesis (local) occurs in word medial position if it is a bi/tri-syllabic word. In monosyllabic words, metathesis usually takes place on final position, when there is a CC cluster on coda position. On the contrary, Non- Local metathesis does not have any specific position on word level. Among the analyzed data, Non- local metathesis frequently targets final position, but medial and initial positions are not exempted.

We have auditory metathesis in Balochi in which presence of a sibilant with a periodic noise changes the order of phonemes. In sibilants metathesis, the order of segments in Makurani (kechi) dialect is stop + fricative on coda position. This order exists in both Rakhshani and Makurani dialects but it is not so frequent. Sometimes, the occurrence of a specific vowel in a specific context brings any kind of phonological change. This possibility is rooted out by considering attested and frequent sequence e.g. if vowel is the cause of change in tautosyllabic word /bʊkʃ/ in Makurani then why /hʊʃk/ 'dry' does not change into *hʊkʃ and why does /mʊʃk/ 'mouse' remain intact and does not change to *mʊkʃ in Makurani dialect. The sequence fricative – stop is frequent on coda position than its reverse position on the same context even in Makurani dialect. So it is quite understandable that metathesis in Balochi is not regular in some cases.

In coarticulatory metathesis overlapping of coronal /t/ with the following velar stop /k/ causes the order to reverse as /kt/ in most of the world languages, but in Balochi this pattern is different as in the original input velar fricative /x/ is followed by coronal stop /t̪/ and the order emerges as /t̪k/. This emerging output goes against the explanation given for coarticulatory metathesis. However, this case is not unique in Balochi as some world languages do have such instances

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