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Deletion Rules in Punjabi Language

Abstract: This term paper is intended to cover some common deletion rules in Punjabi. It focuses on the Punjabi that is spoken in Lahore. The term paper starts with a description of deletion and some common deletions in some languages. Then it defines the methodology adopted in the paper. It then describes the rules one by one by first providing some examples and then presenting the rule as the conclusion. Discussion marks some common behaviors of Punjabi language.

1. INTRODUCTION

Sound change rules are present in all languages. One of the sound change rules is deletion that is depicted by many languages. In some languages it does not play an important role but many languages do have deletion as a very common rule.

Punjabi is a vast language and is spoken by a large population of Pakistan. Though it is the primary language of Punjab, the Punjabi language spoken in different parts of Punjab is not the same. The rules are also different. For instance, Punjabi speakers in Lahore, Sargodha and Faisalabad have different speaking styles and pronunciation. However we can use the rules of one part to predict the behavior of other part.

Punjabi language is also greatly influenced by Urdu. It has imported many words from Urdu. Many speakers with strong Urdu background tend to apply Urdu rules while speaking Punjabi. So there are variations among the speakers as well. In addition there are many rules that are familiar to the native speakers only.

1.1 Deletion

Deletion refers to the omission of a segment or sound. In cases a sound is so weakly articulated that it completely loses its acoustic significance. Deletion can be of a single feature, sound or a complete syllable.

Many languages exhibit deletion. As given in [2], In English,

I am changes to *I'm* with the deletion of a vowel

Knight changes to *night* with the deletion of /k/

Knife changes to *nife* with the deletion of /k/

In German,

wie geht es changes to *wie geht's* meaning 'how goes it' with the deletion of a vowel

2. PROBLEM STATEMENT

Deletion is one of the basic voice change rules. Then what are the rules that govern these deletions in Punjabi? What are the environments when these are applied? The term paper looks to find the answer to these questions.

3. LITERATURE REVIEW

We looked for any previous work on deletion rules in Punjabi but were unable to find any. In this paper we have tried to provide a set of standard rules for the deletion.

4. METHODOLOGY

We read some Punjabi magazines from various universities of Lahore. From these magazines we separated all those words in which any deletion was encountered. We confirmed all these words from the dictionaries and removed any conflicts in the pronunciation by referring to various speakers having Punjabi background. We classified the words according to the type of deletion and tried to figure out the similarities in the words. The rules were established on the basis of these similarities. Using the dictionaries we randomly selected more words to check whether all words follow the rules or not. Many of the words were also taken from the daily conversation. A group of words was then selected for each rule that covered maximum possible cases. A team of five students having Punjabi background was selected to speak these words. The recordings were done for single words not sentences. We derived our results from the collection of words from dictionaries. The recorded data was used to clear any possible doubts.

4.1 Rule Specification

The rules are shown using the technique of timing tiers (Auto-segmental phonology). In all rules, the left side of the rule indicates the sound before application of rule and the right side indicates the sound after the application of rule. The tiers are interpreted left to right. If the rule is related to a specific feature, the features are shown. In case the rule relates to a specific phoneme, rule is defined in terms of that phoneme. The words are given in first phonemic and then phonetic transcription and the deletion is highlighted.

5. RULES

A change in any sound is usually governed by a rule. Deletion is not much different. Based on the data collected we were able to find following rules of deletion in Punjabi.

5.1 Rule 1

In order to understand Rule 1, consider following data,

/b ^h andʒa/	[pandʒa]	"nephew"
/g ^h oɾoɾa/	[ko(]	"horse"
/□((((((I/	[t□ərt□I]	"land"
/□(□□/	[tol]	"drum"
/□□((□ĩ/	[t□□□iĩ]	"bush"
/b ^h ara/	[para]	"heavy"
/g ^h ət/	[kət]	"less"
/d ^h ean/	[ʔean]	"attention"
/d ^h it/	[tit]	"willful"
/dʒ ^h əla/	[tʃəla]	"idiot"

From the data we can see that when an oral stop having features of voicing and aspiration appears in the beginning of word, it loses both its voicing and aspiration. In terms of auto-segmental phonology it can be shown as,

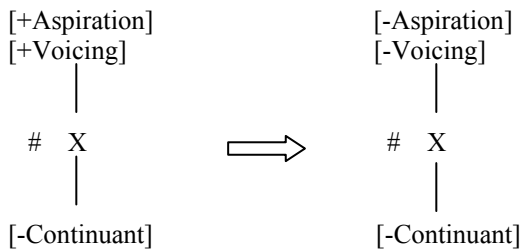


Figure 1. Deletion rule 1

We can see from the rule that Punjabi does not allow the combination of aspiration and voicing in the start of word and reacts to this combination by eliminating both properties. However its behavior is different in case voicing is not present. For example,

/tʃ ^h ɪtəɾ/	[tʃ ^h ɪtəɾ]	"shoe"
/t ^h ā/	[t ^h ā]	"place"
/t ^h ud/	[t ^h ud]	"stumble"
/t ^h ɪgna/	[t ^h ɪgna]	"of small size"
/tʃ ^h əpɪndʒa/	[tʃ ^h əpɪndʒa]	"fifty six"

Examples show that the rule comes under consideration because of the combination of voicing and aspiration.

5.2 Rule 2

The second rule deals with the deletion of /h/. When /h/ occurs at the end of a word it gets deleted under the following rules.

5.2.1. Case 1

Before we discuss the rule in general, consider following data,

/pərvah/	[pərvə]	"care"
/ʔoh/	[ʔo]	"he"
/ʔæhh/	[ʔæ]	"this"
/kih/	[ki]	"what"
/sehh/	[se]	"porcupine"
/k ^h uh/	[k ^h u]	"well"
/k ^h ɔh/	[k ^h ɔ]	"enmity"

If the vowel preceding /h/ is a long vowel, /h/ gets deleted along with its timing tier. We can show it as,

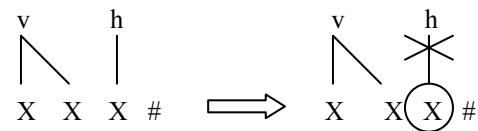


Figure 2. Deletion rule 2.1

5.2.2. Case 2

Looking at the deletion of /h/, consider some examples,

/rɪʃtəh/	[rɪʃtə]	"relationship"
/pealəh/	[pealə]	"bowl"
/vədʒəh/	[vədʒə]	"reason"
/bəndəh/	[bəndə]	"person"
/rəh/	[ra]	"way"
/bevəh/	[beva]	"widow"

From the examples we can see that if the vowel preceding /h/ is a short vowel, /h/ gets deleted and the vowel spreads to the tier previously occupied by /h/. This changes the short vowel into a long vowel. We can show it as,

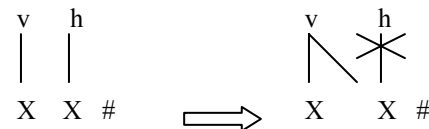


Figure 3. Deletion rule 2.2

We looked for the examples for all short vowels but only managed to find the examples for /ə/. However we expect all other vowels to behave the same according to this rule. According to the data collected the rule is fully applicable to /ə/.

5.3 Rule 3

For Rule 3, review following data,

/sohna/	[sona]	"beautiful"
/dehat/	[deat]	"village"
/mənhus/	[mənus]	"unlucky"
/tərhā/	[tərā]	"method"
/dʒəhaz/	[dʒəaz]	"plane"
/rəhe/	[ræ]	"stay"
/ləhu/	[ləu]	"blood"

In all these examples, /h/ occurs in the middle of a word. We see that if /h/ occurs in the middle of a word, it gets deleted along with its timing tier without affecting any other sound. Using the timing tier we can depict this rule as,

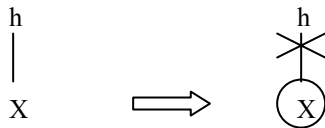


Figure 4. Deletion rule 3

5.4 Rule 4

Rule 4 is related to the behavior of Punjabi towards the combination of voicing and aspiration. Consider some examples,

/ləb ^h /	[ləb]	"seek"
/mʊdʒ ^h /	[mʊdʒ]	"me"
/ʔəd ^h /	[ʔəd]	"half"
/mʊd ^h /	[mʊd]	"root"
/lang ^h /	[lang]	"passing"
/səmdʒ ^h ən/	[səmdʒən]	"understand"
/məd ^h oʃ/	[mədʒoʃ]	"senseless"
/t ^h əndə/	[təndə]	"cool"
/bəɡ ^h iaɾ/	[bəɡiaɾ]	"animal"
/ləb ^h na/	[ləbna]	"to seek"

From the data given we conclude that when any oral stop with features of voicing and aspiration occurs at the end of the word, it loses its aspiration but retains its voicing. Rule is as,

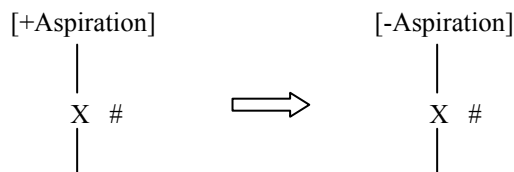


Figure 5. Deletion rule 4.1

Similarly, if an oral stop with features of voicing and aspiration occurs in the middle of a word, it loses its aspiration. We can show this as,

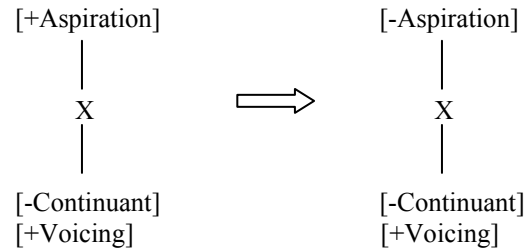


Figure 6. Deletion rule 4.2

Unlike Rule 1, in this case only the aspiration of the sound is deleted. From Rule 2 and Rule 4 we may conclude that aspiration at the end of the word is not acceptable in any form.

6. DISCUSSION

Punjabi seems to follow the rule of simplicity. It tends to drop any sound or feature that complicates the speaking of a word. When spoken in isolation, some rules may be less effective but the rules become clearer when the words are spoken in a sentence with complete Punjabi flow.

Every language expands over the time and imports words from various languages. One reason for deletion can be that a phoneme imported from another language either has no corresponding phone in Punjabi or is mapped on to some phone with similar property (/h/ to a vowel for instance).

REFERENCES

- [1] An Introduction to Phonetics and Phonology Second Edition by John Clark and Colin Yallop
- [2] Phonology, An Introduction to Basic Concepts by Roger Lass
- [3] Punjabi Urdu Dictionary by Tanveer Bukhari Urdu Science Board
- [4] Punjabi Dictionary by Irshad Ahmed Punjabi

APPENDIX

The appendix consists of a list of words classified on the basis of the deletion rules.

Words for Rule 1

Phonemic Transcription	Phonic Transcription	Meaning
/b ^h adʒi/	[padʒi]	"curry"

/bʰag/	[pag]	"luck"
/bʰalu/	[palu]	"panda"
/bʰətidʒa/	[pətʰidʒa]	"nephew"
/bʰəgoɾa/	[pəgoɾa]	"coward"
/bʰɪndi/	[pɪndi]	"lady finger"
/bʰang/	[pang]	"hemp"
/dʒʰutən/	[tʃutən]	
/gʰænti/	[kænti]	"bell"
/gʰi/	[ki]	"butter oil"
/gʰungʰət/	[kungət]	"veil"
/bʰabʰi/	[pabi]	"sister in law"
/gʰotna/	[kotna]	"to grind"
/gʰobi/	[kobi]	"cabbage"
/gʰəɾi/	[kəri]	"watch"
/dʰingri/	[tɪŋgri]	"branch of tree"
/dʰimi/	[ʃimi]	"slow"
/dʰup/	[ʃup]	"sunshine"
/bʰare/	[pare]	"heavy"
/bʰudʒe/	[pudʒe]	"roasted"
/dʰun/	[ʃun]	"tune"
/gʰər/	[kər]	"home"

Words for Rule 2.1

Phonemic Transcription	Phonic Transcription	Meaning
/bəkvaʰ/	[bəkva]	"silly stuff"
/pəɖʒaʰ/	[pəɖʒa]	"fifty"
/lɔʰ/	[lɔ]	"flame"
/pəɾbaʰ/	[pəɾba]	"flow of water"
/pəɾmoʰ/	[pəɾmo]	"restlessness"
/pəgaʰ/	[pəga]	"war"

/pəlaʰ/	[pəla]	"bush"
/pəvaʰ/	[pəva]	"path"
/tʰoh/	[tʰo]	"place"
/piʰ/	[pi]	"drink"

Words for Rule 2.2

Phonemic Transcription	Phonic Transcription	Meaning
/hɪsəʰ/	[hɪsa]	"part"
/hɔsləʰ/	[hɔsla]	"courage"
/həmləʰ/	[həmla]	"attack"
/xəɾəʰ/	[xəɾa]	"danger"
/həlkeʰ/	[həlka]	"zone"
/fəəsləʰ/	[fəəsla]	"decision"
/xəɾtʃəʰ/	[xəɾtʃa]	"expense"
/xəsəʰ/	[xəsra]	"a disease"
/xuɾbəʰ/	[xuɾba]	"to address"
/xəstəʰ/	[xəstə]	"crisp"
/xuləsəʰ/	[xulasa]	"summary"
/xəməʰ/	[xəma]	"tent"

Words for Rule 3

Phonemic Transcription	Phonic Transcription	Meaning
/kaʰdɛ/	[kaɖɛ]	"whose"
/məʰarəɾ/	[məəɾəɾ]	"skill"
/ʔɔʰdɛ/	[ʔɔɖɛ]	"his"
/soʰne/	[sone]	"cute"
/dʒəʰa/	[dʒɛɾa]	"which"
/ʃahi/	[ʃai]	"royal"
/rahi/	[rai]	"traveler"
/dɛʰaɾ/	[dɛaɾ]	"day"

/mæhsus/	[mæsus]	"feel"
/bohta/	[boʈa]	"very"
/təhrik/	[tərik]	"motivation"
/rəhe/	[ræ]	"stay"
/bohet/	[boet]	"very"
/sehə/	[seə]	"health"
/tʃahnde/	[tʃande]	"will"
/jæhr/	[jær]	"city"
/tʃahli/	[tʃali]	"forty"
/ræhn/	[ræn]	"leave"
/vehra/	[veʀa]	"court"
/barhvā/	[barvā]	"twelfth"
/bæh/	[bæ]	"sit"
/kehri/	[keri]	"which"
/væhji/	[væji]	"wild"

/beradʰ/	[berad]	"misery"
/besandʰ/	[besand]	"stink"
/buggʰ/	[bugg]	"slogan"
/belləbʰ/	[belləb]	"beloved"
/beldʰ/	[beld]	"ox"
/pundʒʰ/	[pundʒ]	"cleanliness"
/bəndʰ/	[bənd]	"barrage"
/budʒʰ/	[budʒ]	"wisdom"
/budʰi/	[budl]	"wisdom"
/pəngʰat/	[pəngat]	"community well"
/pəngʰura/	[pənguʀa]	"cradle"
/pundʒʰi/	[pundʒi]	"clean"

Words for Rule 4

Phonemic Transcription	Phonic Transcription	Meaning
/ʔuləʒʰ/	[ʔuləʒ]	"entanglement"
/dudʰ/	[dud]	"milk"
/tʃəʰ/	[tʃər]	"climb"
/pəʰ/	[pər]	"read"
/vəʒʰ/	[vəʒ]	"move ahead"
/ʔəʒʰi/	[ʔəʒl]	"half"
/ʔagʰā/	[ʔagā]	"before"
/pingʰā/	[pingā]	"swing"
/məʒʰolən/	[məʒolən]	"crush"
/gʰagʰra/	[kagra]	"petticoat"
/budʰ/	[bud]	"wisdom"
/budʰ/	[bud]	"old age"