The rules for Eastern Shoshone Sandhi are essentially the same as those stated for another dialect by Nick Miller, that is, a consonant may be softened, hardened, nasalized or whispered depending on the sound or sounds which precede it.

The phonetic realization of each rule however must be stated for each consonant, as well as the phonetic nature of the preceding constraints which condition them.

In one sense the term 'hardening' is a misnomer, because the hard form of the consonant is the best form to choose as a starting point from which to predict the other forms. Proceeding from this group—p, t, k, kw—the softening is described as voicing and fricativizing the hard consonants so that they become v, flap r, fricative g, and fricative kw respectively. Nasalizing results in voicing and prenasalizing each of the hard consonants—mb, nd, ngg, ngkw.

The whispered series are voiceless and fricativized— f, x, xw.

Since the phonetic qualities of softening, nasalizing and becoming whispered are theoretically predictable on the basis of the preceding environment, the "ideal" writing solution would be to use the hard forms (p, t, k, kw) only, allowing the preceding context to generate, by regular rules, the modified forms. This would have the virtue to keeping spelling variations to a minimum and making writing very simple. However it would be much more of a departure from the English conventions with which literate Shoshones are familiar. There could very well be a resulting quantity of controversy which would offset the advantages of the
theoretical ideal. There are also a number of cases where the predict­ing environment is quite complicated and/or arbitrary, as well as cases where the morphophonemic change is strangely irregular. There is also a fair number of cases where morphophonemic changes are the result of regressive rather than progressive influence.

1. Examples of change of initial p, t, k to v, d, g \([v, \dd, \gamma]\) (softening).

1.1. When the final syllable of the preceding word is lost.

1.1.1. With loss of final syllable -ha.

\begin{align*}
\text{pahdiya}-\text{ha} \text{ (elk) pidenu (arrived)} & > \text{pahdiya}-\text{videnu} \text{ (elk arrived)}. \\
\text{nee}-\text{qe} \text{ (I) pahdi-ya}-\text{ha} \text{ (elk) paikanu (killed)} & > \\
\text{nee-vahdi-ya}-\text{vaikanu} \text{ (I killed an elk)}. \\
\end{align*}

In the word for "elk" the change of -ya- to -yai- is obviously an object marker.

1.1.2. With loss of final syllable -ho

\begin{align*}
\text{timisimotoho}-\text{ho} \text{ (humming bird) pidenu (arrived)} & > \\
\text{timisimotoho}-\text{videnu} \text{ (humming bird arrived)}. \\
\end{align*}

1.1.3. With loss of final syllable -hu.

\begin{align*}
\text{kagu-\text{-hu} (maternal grandmother) pidenu (arrived)} & > \\
\text{kagu-videnu} \text{ (grandmother arrived)} \\
\text{pukuhu-\text{hu} (pet) pidenu (arrived)} & > \text{pukuhu-videnu} \text{ (pet arrived)} \\
\text{siipuku-hu (sheep) pidenu (arrived)} & > \text{siipuku-videnu} \text{ (sheep arrived)} \\
\end{align*}

1.1.4. With loss of final syllable -qa

\begin{align*}
\text{ada-qa} \text{ (uncle) pidenu (arrived)} & > \text{ada-videnu} \text{ (uncle arrived)} \\
\text{tuwa-qa} \text{ (son) pidenu (arrived)} & > \text{tuwa-videnu} \text{ (son arrived)} \\
\text{kwenya-qa} \text{ (chicken) pidenu (arrived)} & > \text{kwenya-videnu} \text{ (chicken arrived)} \\
\text{poziya-qa} \text{ (male buffalo) pidenu (arrived)} & > \text{poziya-videnu} \text{ (buffalo arrived)} \\
\end{align*}
1.1.5. With loss of final syllable -qe

tainape-qe (man) pidenu (arrived) > tainape-viðenu (man arrived)

waype-qe (woman) pidenu (arrived) > waype-viðenu (woman arrived)

taiyape-qe (paternal uncle) pidenu (arrived)>

waype-viðenu (uncle arrived)

tunyepe-qe (boy) pidenu (arrived) > tunyepe-viðenu (boy arrived)

kunhape-qe (husband) pidenu (arrived) > kunhape-viðenu (husband arrived)

nee-qe (I) ne-qe (my) pa-rapi (hair) koisoinu (washed)>

nee-ne-vambi-koisoinu (I washed my hair)

seme-qe (one) taka (arrowhead) > seme-daka (one arrowhead)

(There is a suspicion that -m- in semeqe is fortis.)

nee-qe (I) paludi-ya-å (elk) paikanu (killed)>

nee-vandi-ya-vaiikanu (I killed an elk)

1.1.6. With loss of final syllable -qi

sadi-qi (dog) pidenu (arrived) > sadi-viðenu (dog arrived)

pavi-qi (older brother) pidenu (arrived)>

pavi-viðenu (older brother arrived)

tanwi-qi (younger brother) pidenu (arrived)>

tanwi-viðenu (younger brother arrived)

1.2. When final syllable of preceding word is voiced.

1.2.1. With voicing of final syllable -he

kwe-he (wife) pidenu (arrived) > kwehe-viðenu (wife arrived)

1.2.2. With voicing of final syllable -nku

pu-nku (horse) pidenu (arrived) > pungu-viðenu (horse arrived)
2. Examples of initial p, t, k being changed to mb, nd, ng (nasalizing and voicing).

2.1. When the final syllable of the preceding word is lost.

2.1.1. With loss of final syllable -qa.

niya-qa(u) kwasu-qu(dress) > niya-ngwasu-qu (my dress).

niya-qa(u) taiy-te(way) > niya-ndaiyte (my baby).

2.1.2. With loss of final syllable -qe.

sudee-qe(they) pididaxa(arrived) > sudee-mbiddaxa (they arrived).

pihyane-qe(boys) pididaxa(arrived) > pinyane-mbiddaxa (boys arrived).

tainane-qe(they) pididaxa(arrived) > tainane-mbiddaxa (men arrived).

2.2. When final syllable of the preceding word is voiced.

2.2.1. With voicing of the final syllable -de.

taipe-de(child) pidenu(arrived) > taipe-ndienu (child arrived).

sa-de(that one) pidenu(arrived) > sade-ndienu (that one arrived).

2.2.2. With voicing of the final syllable -nte.

tsaa-nte(good) taigwape(word) > tsaande-ndaigwape (good word).

tsaa-nte(good) tafai(day) > tsaande-ndafai (good day).

2.2.3. With voicing of the final syllable -fu.

ta-fu(rabbit) pidenu(arrived) > tavu-mbidenu (rabbit arrived).

2.2.4. With voicing of the final syllable -mu.

tosaka-mu(jack rabbit) pidenu(arrived) >
tosakamu-mbidenu (jack rabbit arrived).

2.3. When the vowel of the final syllable is voiced.

2.3.1. With voicing of final vowel -a.

pivi-ta(horsefly) pidenu(arrived) > pivita-mbidenu (horsefly arrived).
2.3.2. With voicing of final vowel -e.

si-te (this one) píénu (arriveu) > site- moíénu (this one arrived).
taiy-te (baby) píénu (arriveu) > taiy-te moíénu (baby arrived).
tosavi-te (white) píénu (horse) > tosavi-moíénu (white horse).
tuuvi-te (black) píénu (horse) > tuuvi-moíénu (black horse).

In 2.3.1. and 2.3.2. the consonant of the final syllable does not become voiced as in the other examples. This is probably because it follows a front vowel, for the front vowels regularly affect the following consonant, for example:

\[ \text{kai-qai (no, not) tsante (good) > kai-zaante } \]

[-x] occurs after front vowels, [-y] /-u/ occurs after other vowels.

3. Examples of p,t,k being changed to f, h, x[p,y,x] (whispers).

3.1. When the final syllable of the preceding word remains voiceless.

3.1.1. With final syllable -fe.

sadiyambiya-fe (female dog) píénu (arriveu) >
sadiyambyafe-fidenu (female dog arrived).
tedeke-fe (thief) píénu (arriveu) > tedeke-fidenu (thief arrived).
kepay-fe (goat) píénu (arriveu) > kepayfe-fidenu (goat arrived).

4. Examples of initial p,t,k remaining unchanged (hardened).

4.1. When the final syllable of the preceding bound morpheme remains unchanged.

4.1.1. With the bound morpheme tuu-.

tuu- (black) píénu (horse) > tuu-píénu (black horse).
tuuvi-te is the full form for black and can be used interchangeably with the short bound form.

4.1.2. With the bound morpheme tosa-.

tosa- (white) píénu (horse) tosa-píénu (white horse).
tosavite is the full form for white and can also be used interchangeably with the short bound form.

A SAMPLE OF SHOSHONE TEXT

The spelling in the first line follows these technical linguistic rules. In the second line the spelling follows the pronunciation used in the telling of this story, and shows the sandhi changes which take place. These changes are comparable to the contrast between the writing and speaking of English. For example, “Did you eat?” is elided in conversation to [dʒiːt] and “On the bottom” to [anəbaɾəm].

"THE DOVE" recorded by Malinda Tidzump on tape in Shoshone Transcribed by Wesley L. Kosin

1. saavaise sude nenwe haywoho tameqe -nwayte
   saavaise // sudenenwehaywoho / tamanwayte

   long ago that Indian dove us like

   nenwe tainapeqe -nrape
   newedainapenrape //

   Indian man was

2. pe- taigwaphisunahakaba egitsihi tavaiqai tama huitsuhu
   pendaigwaphisunahakaba // egitsidavaine / tama/ huitsuhu/

   he promised become now today we bird

   o- nakangu puiki
   onrakanguvuik //

   he became see

3. sude semeqe pe- navitengenhavisaphisunenqi
   sudesembenavitengenhavisaphis / navuinqi //

   he that his war paint looks like
nenwe -wayqi o- navitengenqu
nenwenwayqonavitengenqu

he was when in the war

4. sude nenwe teka wayqpeqe o- tuwaqa kunha tsayne
sudenenwedekawayqpehe // onduvakunhazayne /

that Indian eater woman his son husband captured
(giant)

sude wihiyu pitetse
sudewihiyu // pitetse /

he then came home

5. o- wadukitse o- yagayngenu suka nenwe teka wayqpanu
owadukitse // oyagayngenu // sukanenwedekawayqpanu/

missed him cried for him that Indian eater woman
(giant)

kanri kekewaaduse
kanrikekewaaduse /

house near

6. yagayniiqhyu pe- tuwaqa -tsaha pidengexante
yagayniiqhyu // penduwatsahan .pidengexante //

cried he his son was after

pe- taigwaphenise haywoho nahape
pendaigwaphenise haywoho / nahape

he promised dove became

7. egitsihi suka pe- tuwaqa pe teteha yagayngepeha nimanrakiniiqhyu
egitsisuka // penduwambendetehayagayngepehanrimanrakiniiqhyu //

now that his son he lonely cried for imitating
### Change which takes place in the final syllable of the first word

<table>
<thead>
<tr>
<th>Change which takes place in the first consonant of a following word, e.g. pidenu 'arrive' Initial p,t,q becomes:</th>
<th>v,d, g</th>
<th>mb,nd, ng</th>
<th>f,hd, x</th>
<th>p,t, k</th>
</tr>
</thead>
</table>

#### Loss of final syllable

<table>
<thead>
<tr>
<th></th>
<th>elk</th>
<th>pahdiya-ha</th>
<th>x</th>
</tr>
</thead>
<tbody>
<tr>
<td>humming bird</td>
<td>timisimotoho-ho</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>maternal grandmother</td>
<td>kagu-hu</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>maternal uncle</td>
<td>ada-qa</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>woman</td>
<td>waype-qe</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>my</td>
<td>niya-qa</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>they</td>
<td>sudee-qe</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>dog</td>
<td>sadi-qi</td>
<td>x</td>
<td></td>
</tr>
</tbody>
</table>

#### Voicing of final syllable

<table>
<thead>
<tr>
<th></th>
<th>wife</th>
<th>kwe-he</th>
<th>x</th>
</tr>
</thead>
<tbody>
<tr>
<td>horse</td>
<td>pu-nku</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>child</td>
<td>taipe-de</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>good</td>
<td>tsaa-nte</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>rabbit</td>
<td>ta-fu</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>jack rabbit</td>
<td>tosake-mu</td>
<td>x</td>
<td></td>
</tr>
</tbody>
</table>

#### Voicing of vowel of final syllable

<table>
<thead>
<tr>
<th></th>
<th>horsefly</th>
<th>pivi-ta</th>
<th>x</th>
</tr>
</thead>
<tbody>
<tr>
<td>this one</td>
<td>si-te</td>
<td>x</td>
<td></td>
</tr>
</tbody>
</table>

#### Unchanging final syllable

<table>
<thead>
<tr>
<th></th>
<th>thief</th>
<th>tedeka-fe</th>
<th>x</th>
</tr>
</thead>
<tbody>
<tr>
<td>white (bound form)</td>
<td>tosa-</td>
<td>x</td>
<td></td>
</tr>
</tbody>
</table>

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SIL-UND Workpapers 1972
Footnote

1This research is based largely on the spoken language of Gene Tidzump and his sister, Malinda Tidzump, of the Wind River Indian Reservation in western Wyoming and was done at the University of North Dakota, Grand Forks, in the Summer Institute of Linguistics in the Summer of 1972 under the guidance of linguistic consultant, Richard S. Pittman, Ph.D.