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THE COLORADO UNIVERSITY SYSTEM FOR WRITING THE LAKHÓTA LANGUAGE

Allan R. Taylor

Abstract

Materials for teaching the Lakhóta language developed by the University of Colorado Lakhóta Project are written in a special new orthography. This orthography, and rules for its use, differ enough from other systems which have been used for writing Dakota dialects to warrant a description of the principles and thinking upon which the system is based. The presentation has been made as nontechnical as possible to make it easily understood by non-linguists.

1. The system of writing Lakhóta used at the University of Colorado is now sufficiently known outside the University to warrant a careful description of its form and uses. The following

2. The Colorado University Lakhóta writing system.

1) Single letters.

study has therefore been prepared to

- 1) Provide a pronunciation guide to the orthography;
- 2) Present the reasons why specific symbols and writing conventions have been adopted for writing Lakhóta;
- 3) Provide a sample of Lakhóta written in the Colorado system.

It is hoped that interested persons will find this study of use, and that observations or questions which they may have will be brought to the attention of the author. Address The Colorado University Lakhóta Project, Department of Linguistics, University of Colorado, Boulder, Colorado 80302.

<i>Lakhóta</i>	<i>English</i>	<i>English Equivalent</i>	<i>Lakhóta Example</i>
a	a	father	Oglála
ḁ	o	money, nasalized huh? (=what did you say?)	hḁ (yes)
b	b	boy	bébelá (baby)
č	ch	church (unaspirated)	šičá (bad)
e	e	pet	lé (this)
g	g	go	Oglála (Oglala Sioux)
ǵ		No English equivalent; the voiced counterpart of ǰ	ǵí (brown) ǵú (burned)
h	h	high	hohú (bone)
ħ		No English equivalent; as <i>ch</i> in German <i>machen</i> , <i>ach</i> .	ħoká (badger)
i	i	machine, not diphthongized (drawled)	í (arrive at a place)
ḯ	i	mink, nasalized	hí (hair)
k	k	skill (unaspirated)	ká ḡa (make)
l	l	limit	loté (throat)

<i>Lakhóta</i>	<i>English</i>	<i>English Equivalent</i>	<i>Lakhóta Example</i>
m	<i>m</i>	many	<i>máza</i> (metal)
n	<i>n</i>	now	<i>napé</i> (hand)
ñ	<i>ng</i>	sing	<i>šun-mániu</i> (wolf)
o	<i>o</i>	coat, but not diphthongized	<i>ógle</i> (coat)
p	<i>p</i>	speech (unaspirated)	<i>pahá</i> (hill)
s	<i>s</i>	so	<i>sí</i> (foot)
š	<i>sh</i>	shoe	<i>šúka</i> (dog)
t	<i>t</i>	stake (unaspirated)	<i>tópa</i> (four)
u	<i>u</i>	chute, not diphthongized	<i>ú</i> (be coming)
u̇		No exact equivalent; as the vowel of put, but nasalized	<i>sú</i> (braid)
w	<i>w</i>	way	<i>wašté</i> (good)
y	<i>y</i>	yes	<i>yuhá</i> (have)
z	<i>z</i>	zoo	<i>zí</i> (yellow)
ž	<i>s</i>	pleasure	<i>ží</i> (blond)
ʔ	dash	oh-oh	<i>aʔú</i> (bring)
ˈ	stress	pérmít (license) perímít (allow)	<i>ógle</i> (coat) <i>oglé</i> (stand, shelf)

2) Double letters.

čh	<i>ch</i>	church (aspirated)	<i>čhápa</i> (beaver)
kh	<i>k</i>	kill (aspirated; the quality of the aspiration varies between the sounds represented by <i>h</i> and <i>ħ</i> .)	<i>khí</i> (reach home) <i>kháta</i> (plum)
ph	<i>p</i>	peach (aspirated; the quality of the aspiration varies between sounds represented by <i>h</i> and <i>ħ</i> .)	<i>phe žúta</i> (medicine) <i>aphá</i> (hit)
th	<i>t</i>	take (aspirated; the quality of the aspiration varies between sounds represented by <i>h</i> and <i>ħ</i> .)	<i>thípi</i> (house) <i>thaló</i> (meat)
čʔ		Glottalized; no exact or near equivalent	<i>čhi čʔú</i> (I gave it to you.)
kʔ		Glottalized; no exact or near equivalent	<i>kʔú</i> (he gave it to him)
pʔ		Glottalized; no exact or near equivalent	<i>pʔó</i> (fog)
tʔ		Glottalized; no exact or near equivalent	<i>tʔé</i> (he died)
bl	<i>bel</i>	below in rapid speech	<i>bló</i> (potato)
gl	<i>gal</i>	galore	<i>glí</i> (reach home)

<i>Lakhóta</i>	<i>English</i>	<i>English Equivalent</i>	<i>Lakhóta Example</i>
gm		No exact equivalent, compare German <i>gemein</i>	<i>gmi gmá</i> (rotate, turn)
gn		No exact equivalent, compare German <i>genug</i>	<i>gnašká</i> (frog)
mn		No exact equivalent, compare <i>Minnesota</i>	<i>mní</i> (water)

3. A superior writing system is one which reflects speech with great accuracy. When writing reflects speech closely, it is easy to learn to read and write because the reader and writer can "sound out" words. On the other hand, if the written language differs in important ways from the spoken language, the reader or writer must use his memory more: he must learn spelling rules and remember to apply them. When the rules can be predicted in some way from what he already knows (i.e., from the language itself) there is little difficulty. But when the rules are based on something outside the language, the reader or writer's success depends on how well he can memorize and recall them. Since not all people are equally gifted for memory and recall, the developer of a writing system should use rules not based on language as little as possible. He should endeavor to make his system useable as far as possible with only a prior knowledge of the language itself.

4. The Colorado University writing system, or more simply, the Colorado system, is one which is very closely tied to spoken Lakhóta. It permits a non-speaker to pronounce words correctly, but it also permits a native speaker to learn to read and write immediately, as soon as he has learned the letters. How he should spell a word is seldom in doubt, because he writes largely as he speaks.

The Colorado system continues some features of earlier systems widely used for writing Lakhóta, although it is different in some respects from all earlier writing systems. Its principal sources are the orthographies and usage of S.R. Riggs, Ella Deloria, and the Lakhóta publications of the United States government.

5. These are the main principles which have been followed in the Colorado system:

- 1) Each symbol represents only one sound, and there is a symbol for each contrasting sound in Lakhóta. *There are no silent letters.*
- 2) All letters except one are letters used for writing English. The single exception is ?.

When letters do not have the same sound as in English, they are modified by the addition of a diacritical mark. These marks give the reader a visual signal not to use an English value for the letter. There are two diacritical marks: vowels have written beneath the vowel, consonants have ˇ written above the consonant.

- 3) Each stressed syllable is marked by the acute accent.
- 4) Lakhóta words are spelled as they are pronounced in slow, careful speech. Where competing slow speech forms occur, each one valid for some speakers, all are accepted as correct. Slurring and shortening, the natural results of different speaking speeds, are not represented in writing. Particles are written as separate words, whether they are stressed or not.
- 5) Capitalization is used for the first letter of the first word in a sentence and for names. Punctuation marks are used as in English. A question mark is written at the end of a question even though a particle almost always identifies a Lakhóta question. Compound words are written with a hyphen between the members of the compound when each of the members occurs otherwise as an independent word.

6. In this section are given specific details about the use of the Colorado system, as well as the detailed reasons for decisions made in designing it. Since some of these points are of largely theoretical nature, the non-linguist may have some difficulty following the presentation. It is hoped that included examples will make points clear if the description does not.

Principle 1

The one sound: one symbol relationship is not completely realized in the Colorado system in that a) some predictable sounds are not written at all and b) some complex sounds are written with two symbols, the first representing one part of

the sound, the second the other. These points will now be explained and illustrated.

All words which do not have an initial consonant are usually pronounced in slow, careful speech with a weak initial ʔ : ʔaphé 'he hit him', ʔi 'mouth', ʔú pi 'they are coming'. Since this glottal stop is characteristic only of words pronounced in isolation (that is, alone, out of context), it does not need to be written.

In the speech of some persons, an accented vowel which is the last sound in a sentence may also be followed by ʔ . Usually the accented final vowel belongs to a verb, although the particle škhé is often pronounced in this way. Hé lila waštéʔ . 'That is very good.' $\text{Owóte-thípi kú kál héʔ}$. 'The restaurant is over there.' Ičʔikte škhé . 'They say he killed himself.' These sentences are spoken with or without a final ʔ : they are correct either way. This final ʔ is not written in the Colorado system.

There is never a contrast between nasalized vowels and oral vowels following the consonants m and n . In most pronunciations the vowels in this position have some nasalization, in some cases considerable. In a consistently used orthography these vowels might be regarded as either nasalized or oral. In the Colorado system they are written as oral vowels (that is, without the hook which indicates nasalization), although the hook under vowels following m and n should not be considered a mistake since it accurately represents most pronunciations.

The consonant clusters bl , gl , gm , gn , and mn are always pronounced with a voiced, vowel-like transition between the consonants. The sound of this transition is comparable to the sound of the first vowel in the English words *below* and *galore*. This vowel sound is not written because it is a predictable feature of the consonant clusters in which it occurs, and because it does not "count" as a vowel in stress placement. This practice has been followed in all of the established orthographies.

In some orthographies aspirated and glottalized sounds are not distinguished from their plain (unaspirated, nonglottalized) equivalents. This is a pity, since plain, aspirated, and glottalized sounds contrast in hundreds of Lakhóta words. In some other orthographies the aspirated and glottalized sounds are written with small raised marks following the symbol for the plain letter. The raised marks which have been used are ʔ or ' for glottalization, ˆ for aspiration.

In the posthumously published Lakhóta dictionary of Father Eugene Buechel, the editor uses a mark (dot) over most plain consonants, and

most aspirated consonants are written with ˆ ; but in many cases, particularly the letter c , the two are not contrasted in writing. The work is a landmark in Lakhóta scholarship, in spite of this unfortunate inconsistency.

The Colorado system uses ʔ for glottalization (converting the traditional ʔ to a "full" letter by bringing it down to the line) and replacing ˆ (the symbol for h used in the Greek alphabet) with h . In this way both of these significant sounds are represented by symbols which occupy the full space allotted to a letter and have the same psychological reality as other letters.

This innovation is an improvement for two reasons. First of all, there is no longer any possibility for either the reader or typesetter to confuse ˆ and ʔ . Second, the characteristic part of glottalized and aspirated consonants is their *release*, which is phonetically identical to the separate sounds represented by h and ʔ , letters which are needed in the alphabet anyhow.

In the aspirated consonants čh kh ph th , the aspiration varies in quality between the sounds represented by h and ħ . In čh the aspiration always has the h sound. The pronunciation of kh ph and th , on the other hand, may be either kh ph th or $k\text{ħ}$ $p\text{ħ}$ $t\text{ħ}$, depending on several factors. In the speech of many persons kh ph th are pronounced when the following sound is i , $í$ or u . The same persons pronounce $k\text{ħ}$ $p\text{ħ}$ $t\text{ħ}$ when the following sound is a , a , o , or u . Before e , either h or ħ is pronounced depending on the specific word. Other speakers have h pronunciation in čh , but ħ pronunciation in the others, regardless of which vowel follows.

Because of this difference from speaker to speaker and word to word, it has seemed best to write only h with č k p t . Language learners should be encouraged, however, to write ħ when they hear this sound in kh ph and th . Variants should all be spelled phonetically in the dictionary.

One of the traditional ways of writing vowel nasalization is by a following "silent" letter, either n (Riggs), ŋ (Buechel), or ŋ (U.S. government). For several reasons, a diacritic has been chosen to indicate vowel nasalization in the Colorado system.

The elimination of "silent" letters means that the learner does not have to watch continually for letters which have no independent sound value.

The use of a diacritic to mark nasalization is better than use of a silent letter because the diacritic shares the space assigned to the vowel letter it accompanies. Moreover, the nasalization

of the vowel is present throughout the vowel, not only at the end, as might be implied by a letter following the nasalized vowel. The use of a diacritic for nasalized vowels, but following letters for aspirated and glottalized consonants, is thus not inconsistent: the vowel diacritic signals a characteristic of the *entire vowel*, while the letters *h* and *ʔ* following the consonants *č k p* and *t* characterize only the *release* of these consonants.

The use of a "silent" *n* (as opposed to "silent" *n* or *ŋ*) in other orthographies is particularly inconvenient for two reasons.

First of all, it must be recognized by a reader as a "silent" *n* and therefore not be interpreted as a letter to be sounded.

A consonant directly following an *n* usually identifies the *n* as a "silent" *n*: *sinté* 'tail', *čhámaska* 'candy'. But this is not always true: in *čhanmáwašte* 'I am happy,' *n* is pronounced.

When the *n* is at the end of a word, or followed by a vowel, the reader must always know the word in order to know how to interpret the written *n*. As an example of final written *n*, consider the word *hehan* 'then'. Without indication of stress, *hehan* could represent any of the following pronunciations: *héha*, *hēhan*, *hēhan*, *hehâ*, *hehân*, *hehân*. The pronunciations *héha* and *hehân* exist, but the others do not. Since there are a number of words which are pronounced with a final *n*, a spelling system which does not clearly distinguish nasalized final vowels and final consonantal *n* is inadequate.

A second major problem area is the many words in Lakhóta where a nasalized vowel is followed by an oral vowel. In careful speech these vowels are separated by *ʔ*, but most systems have not written glottal stop in this position.

In a system which uses a "silent" *n* to indicate nasalization of the preceding vowel, an *n* preceded and followed by a vowel might represent either a "pronounced" *n* or a "silent" *n*. Take as examples the spellings *waniglake* and *thaníyan*. With "silent" *n* these words would be pronounced *wāʔíglake* and *thāʔíyā*, meaning 'he saw himself' and 'openly'. With "pronounced" *n*, these words would be *wāniglake* and *thāniya* 'you saw yourself' and 'breath'.

To summarize, in order to interpret correctly many instances of *n* in a spelling system which uses a "silent" *n*, the reader must constantly use information outside the spelled word—(for example, the meaning of the word, or its context)—to help him. If he does not know the word, then he

often can not guess accurately whether the *n* is "silent" or not.

The use of "silent" *n* is also troublesome for language learners because they are tempted by the spelling to pronounce an oral vowel followed by *n* rather than a nasalized vowel. If the learner's native language (e.g. English) does not contain nasalized vowels, he will probably try to pronounce nasalized vowels as a vowel and *n* sequence anyhow, and an orthography which uses "silent" *n* in this way would reinforce his instinctive (incorrect) tendency.

Principle 2

Letters from the ordinary English alphabet have been used in the Colorado system because all speakers of Lakhóta either already read and write English, or they will learn to read and write English. Transfer from one writing system to the other is therefore facilitated, and there is mutual reinforcement.

When letters are used in a value different from that used for English, a diacritic is added to the English letter representing the closest English sound. Alphabetical order is then no problem: the letter with a diacritic follows the identical letter without a diacritic.

Earlier systems of writing Lakhóta have used various diacritics for marking English letters. Riggs used a dot above consonant letters, a practice which was continued by Deloria. In United States Government publications the dot is replaced with a wedge. The latter practice is continued in the Colorado system because the wedge is easier to see than a dot. The use of a hook beneath the vowel to indicate nasalization comes from Deloria. The advantage offered by the use of *˘* over other representations was discussed under Principal 1.

English *sh* has not been used for *š* because *sh* is two letters, but the sound is a single unit; *j* has not been used for *ž* because *j* would then represent different sounds in the writing systems of the two languages. Moreover, *ž* has exactly the same relationship to *z* as *š* has to *s*, that is, the two letters with *˘* represent palatal sounds, the two without *˘* represent dental sounds.

Principle 3

Almost every Lakhóta word has at least one stressed syllable. The only words which do not have stress are certain particles of one syllable. Compound words may have more than one stressed syllable.

Stress comes on the first or second syllable in almost all words; but since it can appear on

either syllable, the place of stress on any given word must be learned. There are some words which are identical except for their stress:

yúze 'he married her' vs. *yuzé* 'he took it out of the water, he dipped it up';

wóbleča 'to rummage' vs. *wobléča* 'to shoot something and break it'.

In writing Lakhóta, the native speaker could omit stress, since his understanding of the context would identify words for him. But it can not be overemphasized that stress should be written by a language learner; and stress must also be indicated in the dictionary. Correct placement of stress is crucial for understanding and speaking Lakhóta, and writing stress draws the learner's attention to its importance and helps him learn its correct position in words.

Principle 4

Slow, careful speech was selected as the base for written Lakhóta for two reasons:

- 1) a reader or writer 'sounding out' words uses slow speech forms naturally;
- 2) all rapid speech styles are based on the same (or nearly the same) slow speech forms.

Moreover, slow speech forms have more cognitive reality than rapid speech forms. This can easily be shown by removing a rapid speech form from its context of rapid speech and presenting it to a native speaker for identification. If it does differ from its slow speech counterpart, the native will invariably identify the rapid form as a conversational variant of the slow speech form. As examples we can cite English contracted forms such as *I'm* or *haven't*. Any native speaker of English instantly identifies these as "shortened" forms of *I am* and *have not*.

Lakhóta rapid speech forms show a number of differences when compared to their slow speech counterparts. The differences are usually in vowels and in the consonants *h*, *ʔ*, *w* and *y*, but other consonants also show differences. Vowels may be dropped in rapid speech, or they may be slurred to produce quite different vowel sounds. The latter is especially dramatic: the sequences *aye* and *awa* in rapid speech are pronounced as a prolonged vowel having respectively the quality of the vowel in *add* (*aye*) or *awful* (*awa*). Examples are *iyéwaye* 'I found it' or *mitháwa* 'it

is mine.' The long vowel is nasalized if either vowel is nasalized in slow speech.

Y is also regularly dropped when it is preceded and followed by *a* and *e*: slow speech *tayá* 'well' becomes rapid speech *taá*, slow speech *kéye* becomes rapid speech *kée*. Because of this the particle *yeló* often appears to have been shortened to *ló* when the preceding word ends in *e*, and some writers have written only *lo* in this position. *ʔ* between vowels in slow speech is also regularly dropped in rapid speech, often with a slurring of the vowels. Slow speech *oʔiyokiphi* 'happy' becomes rapid speech *o(y)iyokiphi*. The same is true of *h*: slow speech *othúwahe* 'town' becomes rapid speech *othúwa(y)e*.

Brief illustrations of changes undergone by other consonants in rapid speech are *Hokšíla g wašté* 'The boy is good,' based on slow speech *Hokšíla ki wašté*; and rapid speech *hená wawíčhaqaka p u hétá* 'when they had seen them', based on slow speech *hená wawíčhaqaka pi kʔu héha*.

The enclitic *pi* which pluralizes verbs is also regularly replaced by a vowel in rapid speech before certain other particles (for example, *kte*, *na*). Although the mechanics are somewhat complex, the vowel which replaces *pi* can always be predicted from the vowel which precedes *pi* in the slow speech version.

What constitutes 'slow, careful speech' must be determined in most cases by experienced speakers. Speakers agree in their slow speech forms in almost all cases, but there are a few in which slightly different slow speech forms are used. For example, some vowels in particular words are always nasalized by some persons but the same vowels are never nasalized by other speakers. When such genuine slow speech forms are in competition it has seemed best to accept both as correct rather than arbitrarily to select one as correct and reject the other. Both forms could be written, and both should appear in the dictionary.

One of the commonest examples of this kind of vowel variation is found in the definite topic marker, which is pronounced *ki* by some, *kí* by others. Other examples are *ečhání*, *ečhání* 'soon', and *híčí*, *híčí*, a particle which intensifies the meaning of the word with which it appears.

Another frequent interchange is between *l* and *n* in word final position following a nasalized vowel: *tohál*, *tohan* 'whenʔ', *hehál*, *hehán* 'then'.

In some cases, competing slow speech forms are the result of the adoption as a slow speech form of a rapid speech form resulting from loss

of *h*. The slow speech form *wakháheža*, 'child' yielded the rapid speech form *wakháyeža*, but this is now a slow speech form for many speakers.

There are certainly also some words whose slow, careful pronunciation appears to be an earlier generation's rapid speech form. Examples which could be cited are *čhámaska* 'candy', which comes from *čhə-hápi-háska* 'long sugar', and *asápi* 'milk', which comes from *az-hápi* 'breast fluid'. For purposes of writing, the forms *čhámaska* and *asápi* should be standard.

Experience has shown that adult readers (or reader-learners) learn to produce rapid speech based on written slow speech with little difficulty. Producing slow speech from written rapid speech is much more difficult. The principle involved here is that a reader can learn to overlook (or slightly change) portions of the written slow form in order to produce the fast forms; to produce slow forms from written fast forms, on the other hand, he must himself supply the missing elements. His success is then dependent on his prior knowledge of the words in question.

It is possible that some young native speakers would have occasional trouble writing slow speech forms, since they would be more likely to know fast speech forms. As is known, the ability to equate various speech styles is generally one of the later stages of the process of language acquisition. This should not be taken as an argument against using slow speech as the basis for the written language, however. Young children learn most easily by memorization, and they could be expected to rely heavily on this technique for learning to write no matter which speaking style was taken as basic.

The writing of the Lakhóta particles has varied widely throughout the period during which Dakota dialects have been written. Some particles have been written as suffixes (that is, attached to the words they function with), others have been written as separate words. The missionaries often wrote as suffixes those particles whose English or Latin equivalents were suffixes, but as separate words those whose translation is a separate word in English or Latin. Thus *la* 'diminutive' and *pi* 'plural' are attached to the word they accompany, but *šni* 'not', and *kte* 'future', are written as separate words. *Yo* 'command', and *he* 'question', on the other hand, are written as separate words, although the suffix treatment might have been expected. Deloria usually wrote particles as suffixes.

In the Colorado system, all particles are written as separate words, except the *pi* which nominalizes verbs (for example *thipi* 'house'). This practice has been followed for two reasons.

A major reason for doing this is that native speakers regard the enclitic particles as *words* rather than *affixes*. They isolate particles from sentences with ease, repeat them in isolation, and usually translate them without great difficulty if there are common English equivalents. The same is not true of affixes. Untrained native speakers have great difficulty analyzing words containing affixes. They cannot recognize (or repeat) affixes without help, precisely because they are meaningless without the rest of the word they appear in.

If any additional justification is needed, enclitic particles can be shifted around in some cases, or omitted, properties which are characteristic of words. Affixes do not enjoy these privileges.

The *pi* which forms nouns from verbs was probably once an enclitic particle, but it is now more like a suffix, judged by the above criteria. The same is probably true of many instances of *la* in words which refer to diminutive or cherished things; *bébela* 'baby' and *šulípála* 'puppy' are examples of this. Note that these words can be made diminutive *bébela la*, *šulípála la*.

Principle 5

The only portion of this principle which requires comment is the writing of compound words.

It seemed desirable to write with hyphens compound words composed of whole separate words; by this means the reader is given a visual signal that the hyphenated elements are to be understood as a unit. At the same time, hyphenation encourages recognition of the separate existence of the members of the compound.

Further use of hyphens in compounds can be a problem for two reasons. One has to do with compounds in which the elements have fused, the other with compounds which themselves include a compound.

Where fusion of some of the elements in a compound has occurred it may be difficult to know where to place the hyphen. For example *ištónitho* 'you have a black eye' is clearly a compound word, since only compound words have two (or more) stresses. Should this be written *išt-ónitho*, putting 'eye' and 'black' in separate parts of the compound, as the meaning requires, or written *ištó-nitho*, putting one stress

in each half? The latter violates a native speaker's feeling, because the element *othó* ('make blue') belongs together. This can be resolved by writing *íštá-onítho*, the fullest slow speech form of the word, or by not writing hyphens in compounds when to do so would give results of the kind described above. The Colorado system has followed both of these practices, but neither with consistency. The *íštá-onítho* solution has been preferred except when this represents a rare or obsolete slow speech form (etymology) rather than a slow speech form which is generally known.

Compound words which themselves include a compound represent a problem of a different kind. Compounding of this type always involves constructions of the kind $a + (b + c)$ or $(a + b) + c$. An English example of the first kind is *lady policeman*, of the second, *shoe polish can*. Lakhóta examples are *Khulwíčhaša-owákpamni-oyáke* 'Lower Brulé Agency' and *natá-yazápi-phežúta* 'headache medicine' (aspirin).

It could be argued that these compounds should be written in such a way that the reader could be helped to identify the portion of the compound which is most closely joined—that is, that portion represented by parentheses in the formulas above. Linguists call this the *head* of the compound.

Hyphens between the elements identify the whole word as a compound, but the hyphens can not show which portion of the compound is the head. Something additional would be required, for example a double hyphen: *shoe-polish-can*, *natá-yazápi-phežúta*.

This could lead, of course, to endless complexity, and it was decided accordingly to leave it to the reader and writer to decide which part of the compound is the head. Some readers will have some difficulty doing this, but the alternative is to complicate writing for everyone.

The most useful way to write compounds is a problem which still awaits solution. It is entirely possible that the best way for language learners would not be the best way for native speakers, and even among these, one could contrast those learning to read and write with those who are experienced readers and writers.

7. In this section is given a sample of Lakhóta written in the Colorado University writing system. All of the principles described above are illustrated in the text. This charming traditional tale is reproduced with the kind permission of the Medicine Root Magazine of Kyle, South

Dakota. A translation is included for the convenience of persons who may not know Lakhóta, or who need help in recognizing words in an unfamiliar spelling system.

Iktómi and the Beavers

1. Iktómi lila ločhí. 2. Čačké wakpála wá aglágla máni-yá h́i na wakpála-iyókałmi wá él hihúni. 3. Ečhúhą wičháša wóglaka pi čha nał'ú. 4. Wíya ḱi čhíčá-wakháyeza ḱi wičhákípa pi na nakú wakháyeža iłát'a pi nał'ú. 5. Pahá wá yačá čha ektá iyáhí na éyokas'í yúkhą čhápa-oyáte tháka wá wawíčhayake. 6. Nuwá pi, škáta pi, na o'iyokíphi yuhá pi.

7. Iktómi héktakiya slohá-kú na wakpála ektá glihúni na thačhá ḱi átaya ńńńlila i'íč'iyu héčhu na ókšakšą étuwe. 8. Yúkhą čha-sáka la wá sagyé wašté čha ičú. 9. Héčhu na čhápa-oyáte-wičhóthi ḱi éгна pápa na šičá-howáya iyáya-iyáke. 10. Yúkhą čhápa ki waži heyé: "Hé mišúka la, tókha hųwó?" 11. Iktómi heyé: "Iyáyeikiya pi yo! Táku wá lila tháka na owáyag šiča čha mní ḱi átaya thegépi na mní čheté ektá táku yáke ki iyúha thebyé yeló." 12. Čhápa ki nihíčiya pi na enágnakiya iyáka pi. 13. "Pahá ḱi ńe-ánakitą pi yo!" Iktómi eyé. 14. Heyí na pahá tháka wá étkiya iyáke. 15. Čhápa ḱi heyá pi: "Čhiyé, thóhiyaka yo! Úkápha pi yo!" eyá pi. 16. Hehál čhápa-oyáte ḱi iyúha ihákab yá pi na pahá wakátuya ḱi wakáta ináži pi. 17. Pahá wakátuya ektá iyúha iyáha pi. 18. Iktómi čha-óphiye wá yuhá, etá oł'ąkhoye ńč́i wahík-pe eyá ikíkču na čhépi na thákíya pi k'ų hená wičhákhute. 19. Čhápa umá ḱi lé wáyáka pi k'ų héha wičhálnaya pi ḱi abléza pi na wakpála étkiya naphá pi. 20. Iktómi lila wíyuškí. 21. Čhápa ńpáya pi k'ų hená wawíčhayag ománi na heyé: "Lé apétu ḱi thaló óta wičháwa'ó weló. Eháš théha thaló óta kte yeló."

22. Ugnáhela Iktómi napé ḱi umá heyé: "Miyé hená wičháwa'ó, minápe ḱi š'agyá itázipa yutítą ų hená t'á pi yeló." 23. Yúkhą umá napé ḱi heyé: "Miyé" heyá "wičhákakte yeló. Miyé čha itázipa ḱi owóthala blutítą na ečhél hená t'á pi yeló." 24. Yúkhą Iktómi heyé: "Miyé čha hená léčhi awíčhawahi na wičhákakte yeló." 25. Yámni pi ḱi iyúha ahóyekičhiya pi na iyúha heyá pi: "Miyé čhápa ḱi hená wičhákakte čha wóya-wašte ḱi miyé mitháwa kta iyéčheča." 26. Hąkéya napé ḱi nuphí-nuphíčaska Iktómi ištá ogná aphá pi. 27. Iktómi heyé: "Húhųhe! Ištá-othómayaya pi yeló!" 28. Umá napé ḱi míla wá ičú. 29. Iktómi hú tópa ḱi iyúha napé núpa pi k'ų hená onáwičhathą pi, héčheča éyaš napé k'ų

umá míla kǐ ʉ Iktómi žhaphé. 30. Makháǵiya-wosláǵi na kaská-iyáye yúkǵa Iktómi tʔá ħpáye. 31. Ičʔikte.

32. Iktómi žǐ la wá ečǵúǵa él hihúni na heyé: "Iktómi úšiyakel! Héla šičáya yeló." eyé. 33. "Iyé ičʔičhizǐ na iyé ičʔikte yeló." 34. Iktómi žǐ la kǐ Iktómi nakháb-iyéyi na heyé: "Miyé na mithí-wahe ób théǵa thaló yúúha pi kte yeló!" 35. Iǵáke.

(Told by Charles Under Baggage.)

Translation of "Iktomi and the Beavers".

1. Iktomi was very hungry. 2. So he was walking along a stream and he reached a bend in the stream. 3. Then he heard men conversing. 4. He heard women calling their children and also children laughing. 5. There was a hill there and he climbed it and peeped over and he saw a large beaver tribe. 6. They were swimming and playing and having a good time.

7. Iktomi crept back to the creek and completely smeared his body with mud and looked around. 8. And then he found a stick which would make a good staff. 9. Having done that, he ran through the beaver camp yelling and making a terrible racket. 10. Then one beaver said: "Hey, younger brother, what's the matter?" 11. Iktomi said "Run for your lives! Something very big and terrible looking is sucking up all the water and eating up whatever is (left) on the bottom." 12. The beavers panicked and ran every which way. 13. "Head for the mountains!" Iktomi said. 14. He said that and ran toward a high hill. 15. The beavers said "Older Brother, just a minute! Wait for us," they said. 16. Then the beaver people all followed him and they stopped on top of a high hill. 17. They all climbed a high hill. 18. Iktomi had a case, from it he quickly took some arrows and he shot the big fat ones. 19. When the beavers saw this they realized they had been tricked and they fled back to the stream. 20. Iktomi was very pleased. 21. He walked around looking at the beavers lying (dead) and he said "Today I have shot an awful lot of meat. But never mind, it will last a long time."

22. Suddenly one of Iktomi's hands said "I am the one who shot them, they died because my hand powerfully held the bow." 23. And then the other hand said "I am the one" it said "who killed them. I am the one who held the bow straight and so they died." 24. And then Iktomi said: "I am the one who brought them here and killed them." 25. The three all began to quarrel

and all said: "I am the one who killed the beavers and the credit should be mine." 26. Finally both of the hands together hit Iktomi in his eyes. 27. Iktomi said "Oh! you have blacked my eyes!" 28. One of the hands took a knife. 29. Iktomi's four feet all kicked the two hands, but one of the hands stabbed Iktomi with the knife. 30. A cloud of dust went up and then cleared away and Iktomi lay dead. 31. He had killed himself.

32. A fuzzy little yellow spider came by just then and said "Poor Iktomi! How sad!" he said. 33. "He fought with himself and he killed himself." 34. The fuzzy little yellow spider kicked Iktomi over and said "My thiwáhe (kin group) and I will have meat for a long time!" 35. The end.

8. As can be seen, the Colorado orthography for writing Lakhóta does succeed in a near perfect phonetic rendering of Lakhóta words spoken in isolation. The writing of sentences in this orthography does call for the use of some conventions, as in the case of particles and compound words, but even here the use of rules which are not directly derivable from the language is kept to a minimum. But apart from this, the rendering of sentences, too, is nearly phonetic.

After three years experience in teaching Lakhóta at the University of Colorado, it has been found that both native speakers and non-natives learn the orthography with ease, and they spell confidently and correctly even words which they have never seen before in writing. With only small changes the same orthography would work equally well for the Dakota and Nakota dialects.

Linguistic efficiency is only one of the criteria by which orthographies are selected by language communities, so no claim is here advanced that this orthography should become a standard. However, its simplicity and consistency should be taken into serious account if Lakhóta speakers ever should decide to consider adoption of a standard written form of this language.

9. The following are works cited in the paper, or which have direct bearing on the question of written Lakhóta:

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