

THE K → C CHANGE

The *k-c* change is a process in Dakota where sounds in the "k family" (*k*, *kh*, *k'*) are changed to their respective counterparts in the "č family" (*č*, *čh*, *č'*) when they follow the vowel *i*, or sometimes *e*. An example of this process is the verb *k'ú*, when conjugated with *ni*, becomes not **nik'ú*, but *nič'ú*.

The linguistic process going on here is called *velar palatalization*, and is common throughout languages—including English. Consider the change of the *t* sound to the *ch* sound in the sentence *I got you*, which is usually pronounced *ay gačhu*, or the changes of both *dy* to *j* and *t* to *ch* in the sentence *did you eat yet* (when pronounced quickly as *dija-ičhet*).

These examples come from fast-speech pronunciations, but English also has palatalization built into its grammar; think of pairs of words such as *speak* vs *speech* (*spiyk* vs *spiyčh*) where *k* becomes *čh*, or *close* vs *closure* (*klowz* vs *klowžr*), or *face* vs *facial* (*feys* vs *feyšl*). When such changes occur is something native speakers of English and Dakota alike learned as children, but as second language learners we must break down the pattern and understand where and when such sound changes occur.

In Dakota, the preference for having a *č* sound after an *i* or *e* instead of a *k* sound is obvious just looking at a list of basic words. Even in simple words like demonstratives, we find *č*'s and *čh*'s where there would otherwise be *k*'s and *kh*'s in this environment. This is of course, easiest to see via example:

kákha	tókheča	kákhed	tókhiya	kákhetu
that kind	what is it like	in that manner	where at	in that way
héčha	héčheča	héčhed	héčhiya	héčhetu
that kind	it is like that	in that manner	there	in that way
déčha	ečhéča	déčhed	déčhiya	ečhétu
this kind	to be like it	in this manner	here	it is so

In these cases, whether a *č* or *k* is present in a word is simply a feature of the word itself; the more complex cases are where a word can have a *k* sometimes and a *č* other times, depending on grammatical processes. It is these cases that we will focus on from here on out.

CHANGES IN CORES

Dakota makes a distinction between active and stative cores when it comes to the *k-č* change. Remember, active cores are (naturally enough) those that describe actions, and they fall into different classes depending on how many participants there are in the action. For instance, the verb *to run* has a single participant; the person who runs, whereas the verb *to see* has two participants, the seer and the seen, and the verb *to give* has three participants; the giver, the thing given, and the person it is given to. For our purposes here we will only need to make a distinction between active cores with one participant from those with more than one participant, as they behave differently with respect to the *k-č* change.

Here are some active verbs with a single participant, (the first row) followed by some with two or more participants (in the second row):

kiŋyé	kú	khí	kiŋhdé
It flies.	He is coming back.	She is returning there.	He is leaving for home.

khé	k'ú	k'íŋ	kidówan
She meant it.	She gave him it.	He carried it on his back.	He sung it to her.

Stative verbs, again naturally enough, describe states of being, such as being cold, being tired, or being lazy. Almost without exception, stative cores have only a single participant; some examples are below.

okhâte	khíža	kíŋta	ikhó
He feels hot.	It squeaks.	It is scraped off.	There is confusion

When it comes to the *k-č* change, the general rule is that verbs with a single participant do not change a *k* to a *č* when conjugation places an *i* before it, but verbs with two or more participants do change.

CORES WITH ONE PARTICIPANT

The two types of cores which have a single participant are stative cores, and the active cores of one participant. Neither of these classes change *k* to *č* after an *i*. We will look at the case of stative cores first.

The stative conjugation for you is *ni*, which ends in an *i*, and so when attached to stative verbs beginning in *k* (such as the examples given above), result in the sequence *ik* appearing within the word.

oníkhate	nikíže	iníkhopi
You feel hot.	You squeaked.	You caused confusion.

This is where the general rule given above starts to break down, in certain cases. Stative cores can be made into active cores with one or more participants by the addition of various markers; but even in these cases *k*'s do not change to *č*'s. Cores created in these ways from stative cores retain their "stative-ness" and do not allow such a change to occur. Some examples are below; which have been made active by the addition of the instrumental prefix *na-*, meaning *with the foot*.

naíč'ikhate	nakíže	nakíŋte
He's warm from walking.	He kicked it and it squeaked.	He scraped (mud) off of it with his foot

The first of these was also altered with the affix *ič'i*, meaning *to do it to oneself*, which placed an *i* directly before the *kh*. However, even in these other cases, conjugating with *ni* does not induce any changes to occur.

naníč'ikhate	naníkize	nanikíŋte
You're warm from walking.	He kicked you and you squeaked.	He scraped (mud) off you with his foot.

Active cores with one participant behave as expected, and do not change *k*'s to *č*'s. As active verbs with one participant only have a doer of the action and no undergoer, the marker *ni* can't even be used, and the main examples we have are when the verb is used as part of a compound, following another verb which ends in an *e* or *i*. For example:

čhaphé-ku
He came home from the stabbing (things).

Here, *kú* does not become *čú* after the *e* ending of *čhaphé*.

CORES WITH MULTIPLE PARTICIPANTS

In active cores with more than one participant, *k*'s change to *č*'s after an *i*. This situation can occur if the core is conjugated using *ni*, the affix marking *you* as the receiver of the action, as well as the affixes *ič'i*, *ki*, *ič'í*, and *č'hi*. Some examples are below.

khé	nič'é	ič'íche	č'hič'é
She meant it.	He meant you.	He meant himself.	I meant you.
k'ú	nič'ú	kič'ú	uŋkíčič'u
He gave her it.	She gave you it.	He gave her his.	He gave it to her for us.

kidówaŋ	ničídowaŋ	čhičídowaŋ	ič'íčídowaŋ
He sung to her.	She sung to you.	I sung to you.	He sung to himself.
k'íŋ	nič'íŋ	čhič'íŋ	kíčič'íŋ
He carried it on his back.	He carried you on his back.	I carried you on my back.	He carried it on his back for her.

Note however, that active cores with more than one participant do not change their *k*'s to *č*'s after an *e*, they only do so following *i*. Thus, although changeable *A*'s turn into *e*'s before the auxiliary verbs *kapíŋ*, *to be reluctant to*, and *kúnza*, *to pretend to*; these verbs keep their *k* unchanged. This remains true even if the previous verb ends in an *i*.

nurwaŋ + kapíŋ	nurwé-kapíŋ	chethí + kapíŋ	chethí-kapíŋ
to swim + to be reluctant to	He doesn't feel like swimming.	to make a fire + to be reluctant	He didn't want to make a fire.
aphÁ + kúnza	aphé-kúnze	sdodyÁ+kúnza	sdodyé-kúnzapi
to hit it + to pretend to	He pretended to strike it.	to know it + to pretend to	They pretended to know it.

The auxiliary *-khiyA*, meaning *to cause something / to allow something* does not change its *kh* to a *ch* following an *e*, but it does if it follows an *i*.

čhaphA+khiyA	čhaphÁ+ni+khiyA	turwÁŋ+khiyA	turwÁŋ+ni+khiyA
to stab it +to cause	to stab + you + to cause	to look + to cause	to look + you + to cause
čhaphékhiye	čhaphéničhiye	turwékhiye	turwéničhiye
He made her stab it.	He made you stab it.	She made him look.	She made you look.

This change happens when other affixes ending in *i*, such as *ic'i*, come before *-khiyA* as well.

uŋspé+ma+ič'i+khiyA uŋspémič'ičhiye
 to learn it + me + oneself + to cause it I am teaching myself it.

Two participant cores can also be formed from stative cores via the marker *ki*. A common example of such a word is the stative verb for being happy, which is *iyókhiphi*, where the *ki* is the dative prefix. When conjugated for *you*, using *ni*, the *k* changes to a *č*.

iyókhiphi	iyómakhiphi	iyóničiphi
He is happy because of it.	I am happy because of it.	You are happy because of it.

This verb provides a good example of another important point; the only time that a *k* can change to a *č* is when that *k* stands alone as a consonant, when it is followed by a vowel. A *k* which occurs as a part of a consonant cluster never changes to a *č*, even when it is preceded by an *i*. For instance, a common contraction of *iyókhiphi* is to remove the *i* in *kí*, giving *iyókphi*. In this contracted form, the *k* is part of a consonant cluster, and does not change, regardless of the conjugation.

iyókphi	iyómakphi	iyónikphi
He is happy because of it.	I am happy because of it.	You are happy because of it.

CHANGES AFTER THE PREFIX I-

The prefix *i-* in Dakota has multiple meanings, and is used for many different purposes. Some of these uses cause any following *k* to change to *č*, whereas others leave it unchanged; so below the different cases are looked at individually.

I- AND WI- AS INSTRUMENTALITY PREFIXES

The prefix *i-*, and the related prefix *wi-* (actually just a contraction of *wa+i*) are often used to create nouns out of cores carrying the meaning of *the thing that (verb)s*, or *the thing used to (verb)*. In general, when *i-* is attached to a verb beginning with a *k* sound, it is changed to a *č* in the noun form.

kazó	wíčazo	kahíŋte	ičáhíŋte	kadú	wíčadu
to draw a line	a marker	to sweep	a broom	to fan someone	a fan
kašdá	ičášda	kasáŋ	ičasáŋ	káǵe	wíčage
to cut it short	a mower	to shave it	a razor	to make it	a tool

DERIVING NOUNS WITH *I-* FROM DATIVE CORE

An exception to the above rule is when a noun is formed using *i-* from a verb which has the dative affix *ki* attached. In this particular circumstance, the *k* does not change to *č*.

ki+khízA	kichíze	i+kichíze	ikíčhize
"ki" + to fight	to fight someone	instrument + fight	a weapon

I- AS A VERBAL PREFIX

The prefix *i-* can be attached to a stative verb to create an active core, or to an active verb to create a new active verb with a different meaning. The meaning of the prefix *i-* is quite variable, and best just seen through example. Generally, the addition of this prefix does not cause the *k-č* change.

khoyáke	ikhóyake	khokiphe	ikhókíphe
He wears it.	It's stuck to him.	He's scared of it.	He's scared of it.
kaǵí	ikáǵi	kipáŋ	ikípaŋ
to avoid sb. out of respect	to be hindered by something	to call out to sb.	to call sb. on account of smth.

As can be seen from the core *kipáŋ* above, cores with the dative prefix *ki* do not change after the prefix *i*.

ičáhi	ikíčahi	kičhó	ikícho
to stir smth.	to stir smth. for sb.	to invite sb.	to invite sb for smth.

Even after these cores have been formed (with the exception of the dative cores), they continue not to change their *k*'s to *č*'s, even during conjugation.

iníkhoyake	inikhokiphe	iníkaği	iníkuše
It stuck to you.	He was scare of you.	You were hindered by it.	Your way was blocked.

The dative verbs however, change *k* to *č* after the conjugation *ni*.

iníčipaŋ	iníčičahi	iníčičo
He called out to you.	He stirred it for you.	He invited you to it.

There is one family of exceptions to this general pattern above.. If the verb in question begins with the instrumental prefix *ka-*, then the combination *ika* becomes *iča*.

kamná	ičámna	kadúzA	ičáduzA
to earn smth.	to earn smth by means of	to run (nose)	to flow / blow
kazó	ičázo	kakížA	ičákížA
to draw a line	to mark something	to suffer	to suffer from smth.
kaňtakA	ičáňtakA	kakhókA	ičákhokA
(verbal stem)	to brush against something	to make a bang by striking something	to make a bang by striking something

USING *I-* AS A LOCATIVE PREFIX

The prefix *i-* is also used to modify adverbs; when it does so it does not change *k* to *č*.

khíyédan nearby	ikhíyedan nearby to	khokáb in front	ikhókab in front of
kakhíyothan in that direction	ikákhiyothan in that direction from	kakhíyatanhan from over there	íkakhíyatanhan on that side of
kańheyata towards the back	ikáńheyata towards the back of	kaáiyohńpeya a little downhill	íkaaiyohńpeya a little downhill from

K-Č CHANGES FOLLOWING A-E CHANGES

In many old texts, examples can be seen where words that begin with a *k* change to a *č* when they follow a word where a changeable *a* has become an *e*. Probably the most common situation of this kind was the change of *kiŋ* to *čiŋ* following a verb with a changeable *A*.

wa+káġA+kiŋ wakáġe číŋ	wanýánkA+kiŋ wanýánke číŋ	ma+aphÁ+kiŋ amáphe číŋ	uŋ+yatkÁŋ+kiŋ uŋyátke číŋ
the thing I made	the one he saw	the one waiting for me	the thing me & you drink

The following other enclitics also would change forms under the identical circumstances:

kiŋ	k'uŋ	kiŋháŋ	k'éyaš
čiŋ	č'uŋ	čiŋháŋ	č'éyaš
the	the aforesaid	when / if	but

These changes did not happen after every word that ended in an *e*. In fact, they only occurred after a verb which had changed its *a* to *e*: verbs which naturally ended in *e* did not affect the following word

wašté kiŋ owadé kiŋ
the good thing that which I found

Also, even when nouns are formed from verbs using instrumental prefixes / other means which also require changeable *A*'s to become *e*'s, the following enclitics were unaffected.

wiyúthe kiŋ wíčhaphe kiŋ oníwe kiŋ
the measure(ment) the fork the swimming pool