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The Historical Origins of Cheyenne Inflections

Ives Goddard
Smithsonian Institution

Although Cheyenne has undergone extensive phonological changes, it has preserved most Proto-Algonquian grammatical categories and contrasts. The morphemes that express these may be directly inherited, in more or less altered form, or analogically reshaped. In some cases the morphology has been extensively rebuilt. This paper traces the history of both the inherited and the restructured morphological formations.[1]

OUTLINE OF CHEYENNE HISTORICAL PHONOLOGY

Cheyenne historical phonology is highly complex and no complete account exists. To provide a preliminary orientation, some salient facts are informally summarized here; see also Goddard (1988).

Vowels

There is a Cheyenne vowel shift that affects basic vowel qualities as follows: PA *i, *e-, *o, and *we > Ch e; otherwise PA *e > Ch a; PA *a > Ch o. Original final vowels in words of more that two syllables fall together to Ch -e.

The long vowels follow the same pattern, with vowel length replaced by underlying high tone: PA *i· and *o·> Ch |é|; PA *e·> Ch |á|; PA *a· > Ch |ó|. The adjustments in the underlying tones are complex, resulting in four phonemically contrastive level tones; from highest to lowest these are: (high) v́; (mid) v̄; (lowered high) v̀; (low) v (Leman 1981). Recent analysis, however, casts doubt on the distinctness of the lowered high tone (Wayne Leman, personal communication 1999) and it is generally not written in this paper. Also, the phonetically distinct but non-contrastive raised high tone (written v̂) is here not distinguished from the high tone.

An original short vowel was lengthened before a nasal cluster if it was in the first syllable of a two-syllable word or followed a word-initial short-vowel syllable (Goddard 1988:352), and apparently also after

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short-vowel syllables later in the word, at least under some conditions (exx. 36, 37, 57, 62, 97).

Word-initial PA vowels and post-PA *o- (< PA *we-) add Ch h-.

Voiceless vowels

All final vowels are devoiced prepausally (thought the devoicing is not indicated), and a single vowel is devoiced before a voiceless segment under certain conditions (and written $\acute{e}$, $\acute{a}$, $\acute{o}$). There is a resulting surface-phonemic contrast between voiced and voiceless vowels in penultimate syllables. The mid and lowered high tones are found only on the penult or antepenult and arise from the devoicing of following vowels. The mid tone is always from an underlying low tone before a devoiced high-tone syllable, and the lowered high tone is always from an underlying high tone before a devoiced low-tone syllable. The tones of the preceding syllables may also affect the outcome. For example, an underlying low tone becomes high between a preceding high tone and a word-final high tone, and in a sequence of underlying high-tone syllables preceding an originally penultimate word-final underlying low-tone syllable (with or without intervening low-tone syllables), all but the first become low-toned by the rule called High Push-Over (HPO; Leman 1981:295). Word-medial voiceless vowels are generally transparent to such tone-adjustment rules. (Not all tones are accounted for in the discussions below.)

A two-vowel sequence in which the second vowel would be devoiced if it were a single vowel (because it is either word final or a penultimate vowel in a devoicing environment) undergoes Vowel Stretching (VS), a rule of synchronic Cheyenne phonology that inserts $|V?|$ between the two vowels (Leman 1981:297–8). Under these conditions, if the second vowel is $|e|$ it is the first vowel that is geminated ($|V_1e| > V_1V_1?e$); otherwise it is the second vowel that is geminated ($|V_1V_2| > V_1V_2?V_2$). In both VS configurations a mid tone on V_1 spreads to the following, intercalated vowel (6).

Single consonants

PA *p and *k are usually lost but sometimes retained; the same two treatments are found as the second member of clusters. The conditioning is uncertain, but in the frequent cases in which the same segment has both

treatments the variant with the retained Ch *p* or *k* is the diminutive of the variant in which the consonant is dropped (Goddard 1978:75–76). However, different segments in the same stem may also have different treatments. Initial PA **k* is always lost, as are PA **p* and **k* in inflections. When retained, PA **p* and **k* are Ch |hp| and |hk| after a vowel, otherwise Ch *k* and *p*. Underlying Ch |hk| is Ch *šk* after an *e*-quality vowel.

PA **t* gives Ch |ht| after a vowel, otherwise usually Ch |t|. A late rule shifts Ch |te| (high or low) to *tse* (this is written in the orthography but not phonemic). Underlying Ch |ht| is Ch *st* after an *e*-quality vowel.

PA **s* gives Ch *h*.

PA **č* gives Ch *s*.

PA **š* gives Ch *x*, but *š* if flanked only by *e*-quality vowel(s), including when *ʔ* intervenes.

PA **w* and **y* following a consonant fall together to pre-Ch **y*. This pre-Ch **y* then drops after a PA consonant if before PA **i(·)* or a Ch -*e* that reflects a Proto-Algonquian final vowel.

PA **w* when not after a consonant gives Ch |v| (phonetically [v], [w]).

PA **y* when not after a consonant falls together with PA **θ* and **r* (Bloomfield's **l*) to pre-Ch **r*, which usually becomes Ch *t*. After a voiceless vowel Ch |t| is not distinct from Ch |ht|; the orthography may write *t* or *ht* after *ạ* or *ọ*, but only -*ẹstse* (< **-ẹhte* < Ch |-ete|).

Yodation

PA **ke* and **ke·* undergo yodation (Goddard 1988:348), inserting a fully segmental pre-Ch **y*: PA **ke* > **kye*; PA **ke·* > **kye·*.

Pre-Ch **y* is also inserted after PA **š* and pre-Ch **r* before a PA **e·*.

After pre-Ch **y*, PA **e* and **e·* do not shift to Ch |a| and |á| but remain as Ch |e| and |é|. Before pre-Ch **y*, PA **t*, PA **š*, and pre-Ch **r* become Ch *s*.

Consonant clusters

Pre-Ch **r* (< PA **θ*, **r*) becomes Ch *h* after a consonant. This change follows the yodation of pre-Ch **r*.

PA **n* (or **m*) and **h* are lost before a true consonant (one other than pre-Ch **y*). This loss precedes the operation of the change that results in the preaspiration of retained voiceless stops after vowels. Thus if the **k* is

lost in PA *_hk_ or *_nk_ clusters the result is Ch zero.

As first members of clusters PA *_s_ (Bloomfield's *_x_), *_š_, *_θ_, *_r_ (Bloomfield's *_ç_), and *_ʔ_ fall together to Ch _ʔ_; PA *_ʔm_ gives Ch _m_.

Subsequent to the loss of PA *_p_ and *_k_, pre-Ch *_y_ is lost following a consonant (other than Ch _h_), after any effects on a following vowel.

A retained pre-Ch *_y_ becomes Ch _n_. A resulting *_ʔhn_ gives Ch _ʔn_.

Final-syllable loss

A pre-Cheyenne final syllable *-C(Y)V (where Y = pre-Ch *_y_ < PA *_w_ or *_y_) is lost (except in disyllables) if the consonant is pre-Ch *_p_, *_k_, *_h_, *_m_, *_n_, or *_w_ (after cluster simplification and the shift of PA *_s_ to Ch _h_.). This follows the devoicing of original penultimate vowels and makes the contrast of voicing in vowels phonemic. In writing Cheyenne underlying forms, the symbol |$| is used word-finally after Ch |e| to indicate that the word-final sequence is treated as if followed by a lost syllable. (All other underlying word-final vowels are always treated as if originally penultimate.)

NOUN INFLECTION

Animate nouns have the directly inherited endings Ch |-e| sg. (< PA *_-a_) and Ch |-o| ANpl (< PA *_-aki_). Monosyllabic animate stems would have regularly had Ch |-o| ANsg (< PA *_-a_), but this is largely replaced by Ch |-e| sg. by paradigmatic leveling and is retained only in two irregular nouns (15, 16). Inanimate nouns have Ch |-e| sg. (< PA *_-i_) and Ch |-ote| INpl (< PA *_-ari_). Stems that drop the final syllable have a zero ending in the singular. Stems that inherited endings with contraction of a post-consonantal semivowel have Ch |-é| ANpl (< PA *_-o·ki_, *_-ye·ki_), Ch |-éte| INpl (< PA *_-o·ri_, *_-ye·ri_); these old contract endings have spread to many stems that did not originally have the contraction.

Animate nouns

In many nouns the plural is directly inherited from the Proto-Algonquian plural (1-4):[2]

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[2] The underlined Cheyenne endings (or underlined space for zero) are the regular continuation of the underlined PA endings; the underlined bold endings, or parts of endings, involve some sort of restructuring. The signs > and < are used for

(1) PA *či·paya̱ 'corpse' > Ch séoʔótse̱; pl. PA *či·payaki̱ > Ch séoto̱ (stem |séot-| + |-o| ANpl).

(2) PA *aθemwa̱ 'dog' → Ch hótame̱ (archaic); pl. PA *aθemo·ki̱ > Ch hotāme̱ (stem |hotam-| + |-é| ANpl).

(3) PA *neta·nehsa̱ 'my daughter' > Ch náhtona̱_; pl. PA *neta·nehsaki̱ > náhtónaho̱ (stem |-htónah-| + |-o| ANpl).

(4) PA *ši·ʔšipa̱ 'duck' > Ch šéʔše_; pl. PA *ši·ʔšipaki̱ > šéʔšeoʔo̱ (stem |šéʔšé| + |-o| ANpl).

The singular of 'corpse, ghost' (1) shows the regular effects of VS (see under *Voiceless* vowels, above). The singular of 'dog' (2) has the final syllable restored.[3] It also shows an unhistorical high pitch that is assigned by Impermanent Antepenultimate High (IAH; Leman 1981:301–6), a synchronic morphologization of high tone the historical source of which is unknown. The final consonant of the stem of 'daughter' (3) is regularly lost in the singular but retained in the plural. The final consonant of the stem of 'duck' is regularly lost in both the singular and the plural; as a consequence the plural ending |-o| comes to stand after a vowel and is therefore subject to VS, giving Ch -oʔo. Ch -oʔo ANpl is simply the post-vocalic realization of |-o|; the glottal stop is produced by VS, a late rule of synchronic Cheyenne phonology, and has nothing to do with the PA *k of the ending,

phonologically regular historical derivation; → and ← are used if reshaping is involved.

Abbreviations of language names before cited forms: Ar=Arapaho; C=Cree; Ch=Cheyenne; EAb=Eastern Abenaki; F=Fox (Meskwaki); M=Menominee; Mass= Massachusett; Mun=Munsee; O=Ojibwa; PA=Proto-Algonquian; SwC=Swampy Cree.

Abbreviations of grammatical labels: AI=animate intransitive; AN=animate; C=consonant; conj.=conjunct; excl.=exclusive; II=inanimate intransitive; imp.= imperative; IN, inan.=inanimate; incl.=inclusive; indep.=independent; ind. ind.=inde-pendent indicative; interr.=interrogative; loc.=locative; mid. refl.=middle reflexive; neg.=negative; OBV, obv.=obviative; pl, pl.=plural; sg, sg.=singular; TA=transitive animate; TI=transitive inanimate; X=indefinite person.

1s=first singular; 1p=first plural exclusive; 12=first plural inclusive; 3=third person animate singular or plural; 3'=third person animate obviative; 3"=further obviative; 0s=third person inanimate singular; 0's=third person inanimate obviative singular; 1s–3=first singular acting on third person animate.

[3] Ch hótame would be the expected reflex of the diminutive PA *aθemwehsa (assuming IAH). There is also an alternate plural hotameho, which would be the expected reflex of the corresponding plural, PA *aθemwehsaki. Cheyenne has no suffix for deriving diminutive nouns.

which was lost by sound law without a trace (see *Final-syllable loss*, above), as seen in the post-consonantal variant Ch *-o* ANpl.

Other nouns have rebuilt the plural:

(5) PA **erenyiwa* 'man' > Ch *hetane_*; pl. PA **erenyiwaki* → Ch *hetaneoʔo* (stem |hetane-| + |-o| ANpl).

(6) PA **seka·kwa* 'skunk' > Ch *xãõʔo_*; PA **seka·kwaki* → Ch *xaóne* (stem |xaón-| + |-é| ANpl).

In 'man' (5) the Cheyenne singular *hetane* is generalized as the stem |hetane-|; |-o| ANpl is added to this new stem and undergoes VS. This is the treatment of all stems that ended in a post-vocalic PA **w*; they can be thought of as modeled on nouns like 'duck' (4), in which the plural was directly inherited. In the case of 'skunk' (6), the plural PA **seka·kwaki*, as with almost all animate nouns in PA **kw*, did not have contraction; its expected reflex would have been Ch **xaono (or **xaòno; |xaóno|). The replacement of |-o| ANpl by |-é| ANpl represents a shift from one inflectional class to another.

Since the Cheyenne plural is unpredictable from the shape of the singular, the existence of variation and defections in inflectional class membership is not surprising. One noun attests four plural shapes:

(7) PA **nekikwa* 'otter' > Ch *náaʔe_* (VS, IAH); pl. PA **nekikwaki* > Ch *naeno*; → *naéne*, *naeoʔo*, *naeho*.

In 'otter' (7) the inherited plural *naeno* is the only one given by Petter (1915:781); the three analogical plurals follow the patterns of 3, 4, and 6, respectively. Although this case is unusual, and may reflect the increasing unfamiliarity of the animal, the patterns of rebuilding reveal the synchronic morphological patterns of the language.

Animate nouns have a single obviative form for both numbers, which basically reflects the Proto-Algonquian obviative plural. The inflection is discussed in detail by Leman (1987). With Cheyenne consonant stems the obviative ending is |-o| OBV (< PA **-ahi* OBVpl) or, reflecting old contraction, |-é| (< PA **-o·hi*, **-ye·hi*). In these stems the obviative ending regularly falls together with the plural ending by the operation of the sound law that dropped final syllables (8, 9):

(8) Ch *náhtónaho* 'my daughter or daughters (obv.)' (cf. 3) < PA **neta·nehsahi* 'my daughters (obv.)'.

(9)   Ch *xaóne̲* 'skunk, skunks (obv.)' (cf. 6) ← PA *šeka·kwa̲hi.

(In subsequent examples Cheyenne obviatives are glossed only as singular, and their Proto-Algonquian obviative plural etyma are left unglossed.)

The obviative of vowel stems has a distinct shape. The underlying form of the ending is either |-o| or |-óhó|, before which the final vowel of the stem (always |-e| or |-é|) is elided; |-o| OBV is used with stems that have a high tone on the vowel preceding the elided vowel (10), and |-óhó| OBV with those that have a low tone (11, 12):

(10)   Ch *še?xo* 'duck (obv.)' (|šé?šo| ← |šé?šé-| + |-o|); cf. *šé?šeo?o* 'ducks' (4).

(11)   Ch *hetanóho* 'man (obv.)' (|hetanóhó| ← |hetane-| + |-óhó|); cf. *hetaneo?o* 'men' (5).

(12)   Ch *he?óho* 'woman (obv.)' (|he?óhó| ← |he?é-| + |-óhó|); cf. *he?e* 'woman', pl. *he?eo?o*.

The history of the distinct obviative forms of vowel stems is complex. An important role seems to have been played by nouns with originally monosyllabic stems (13, 14):

(13)   Ch *notse* (or *nòtse*; |nóte|) 'enemy' ← PA *pwa·θa; pl. *nótseo?o* (|nóteo|); obv. *noto* (or *nòto*; |nóto|).

(14)   Ch *pe?e* (or *pè?e*; |pé?e|) 'nighthawk' ← PA *pi·škwa; pl. *pé?eo?o* (|pé?eo|); obv. *pe?o* (or *pè?o*; |pé?o|).

In contrast to the synchronically regular pattern of 'enemy' (13) and 'nighthawk' (14), two monosyllabic dependent noun stems retain Ch -*o* as the reflex of PA *-a* ANsg (15, 16):

(15)   Ch *eho* (or *èho*) 'your father' < PA *ko·hθa; Ch *heho* 'his father' < PA *o·hθahi.

(16)   Ch *neško* 'your mother' < PA *kekya; Ch *he̅ške*[4] (|hehké|) 'his mother' < PA *wekye·hi.

The archaic shape of 'your father' (15) and 'your mother' (16) was presumably preserved because they are high-frequency forms; also, they lack corresponding plurals, and their paradigms have other synchronic

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[4] The mid tone is written on the basis of a sound file kindly made available by Wayne Leman.

irregularities, notably in the first-singular (Leman 1991:15, 16). These forms demonstrate that final vowels did not fall together to pre-Ch *-e in two-syllable words, as they did in longer words.

The expected singulars of 'enemy' (13) and 'nighthawk' (14) would, therefore, have been *|nóto| (<PA *pwa·θa) and *|pé?o| (<PA *pi·škwa), the same as the expected reflexes of the plurals (< PA *pwa·θaki, *pi·škwaki) and the obviatives (< PA *pwa·θahi, *pi·škwahi). This inherited homophony was eliminated by reshaping both the singulars and the plurals, and the originally multivalent forms survive only as obviatives. New singulars were made with the suffix |-e| sg. that was inherited with longer stems (1, 2). New plurals were made by treating the new singulars as stems and adding |-o| ANpl to this, resulting in a paradigm analogical to that inherited in 'duck' (4) and widely extended. As a result of these innovations, these original monosyllabic stems established a synchronic pattern in which the final vowel of the stem was ostensibly elided before the obviative ending. This pattern of elision in the obviative was then extended to stems in which the final vowel was historically part of the stem (10). The synchronic phonological process of elision is not the relic of a similar historical change; there is no evidence that vowel elision was an historical change in Cheyenne, which tolerates lengthy vowel sequences arising from the loss of PA *p and *k.

Nouns with |-óhó| OBV instead of |-o| OBV (e.g. 11, 12) have apparenly undergone influence from verbal paradigms (see below).

Inanimate nouns

As in the case of the animates, many inanimate nouns are directly inherited in both their singular and plural forms (17, 18, 19, 20). Ch |-éte| INpl undergoes regular phonological processes that devoice the penultimate vowel and then shift |t| to |ht|, resulting in the surface realization -éstse (19, 20):

(17) PA *mi·ni 'berry' > Ch mene; pl. PA *mi·nari > Ch menótse (stem |mén-| + |-ote| INpl).

(18) PA *maskeseni 'shoe' > Ch mo?keha_; pl. PA *maskesenari > Ch mo?kéhanótse (stem |mo?kehan-|).

(19) PA *netaskyi 'my land' > Ch náhto?e; pl. PA *netaskye·ri > Ch náhtó?éstse (stem |-hto?(e)-| + |-éte| INpl).

(20) PA *me ?tekwa pyi̱ 'bowstring' > Ch ma ?tāno_; pl. PA *me ?tekwa pye̱ ri̱ >
Ch ma ?tanón és_tse (stem |ma?tanón-|).

A number of inanimate nouns innovate an inserted |n| before the
Inherited plural ending (21), a pattern inherited in a few nouns like 20, and
the ostensible suffix |-néte| INpl spreads to other nouns (22):

(21) PA *meški·nšekwi̱ 'eye' > Ch ma ?exa_; pl. PA *meški·nšeko̱·ri̱ → Ch
ma ?éxán és_tse (stem |-?éxa(n)-|).

(22) PA *saskete·wi̱ > Ch ho ?ēsta_ 'fire'; pl. PA *saskete·wari̱ → Ch
ho ?éstán és_tse (stem |ho?ehtá(n)-|).[5]

The three distinct origins of the stems that ostensibly take Ch |-néte|
INpl (20, 21, 22) are reflected in the derived verbs of being, which add a
suffix that is basically Ch |-éve| after a consonant stem and |-'ve| after a
vowel (on which high tone is induced).[6] Stems in which the |n| in the
plural is inherited extend it to the verb of being, where it is not inherited
(23):

(23) Ch ma ?tanón és_tse 'bowstrings' (|ma?tanón_-|; 20): é=ma ?tanón évén és_tse
'they are bowstrings' (|ma?tanón éve-| ← PA *me ?tekwa·pi̱wi̱- 'be a
bowstring').

Stems in which the |n| in the plural was inserted in a vowel sequence
arising from a lost PA *k lack |n| in the verb of being and maintain the
historical vowel sequence (24):

(24) Ch ma ?éxán és_tse 'eyes' (|ma?éxa(n̲)-|; 21); é=ma ?éxá̲évén és_tse 'they are
eyes' (|ma?éxa̲éve-| ← PA *me-ški·nšekowi̱- 'be an eye').

Stems that add |n| in the plural after a loss of stem-final *w lack the |n| in
the verb of being and directly reflect the Proto-Algonquian contraction
(n. 6), taking the suffix in the form |-'ve| (25):

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[5] The usual word PA *eškwete·wi 'fire' is replaced in Cheyenne by an agent noun
derived from PA *saskete·wi 'it catches fire'.

[6] Ch |-(é)ve| 'be a ___' continues PA *-iwi with generalization of the long vowel
from contracting stems; e.g., PA *erenyiwa̱ 'man' (5) → *erenyiw-iwi- > PA
*erenyi·wi- 'be a man' (Goddard 1991:175–6) > Ch |hetanéve-| (é=hetanéveo ?o
'they are men'), Ar hi·není·nit 'he is a man' (|ineni·ni-|), O inini·wi (ppl. e·nini·wit),
SwC inini·wiw 'he is alive'.

(25) Ch *hoʔésta* 'fire' (|hoʔehtá(**n**)-|; 22); *é=hoʔéstávénéstse* 'they are fires' (|hoʔehtáve-|); cf. PA **eškwete·wi-* 'be fire' (< **eškwete·w-iwi-*).

The high tone on the |-éve| in 23 and 24 is historically secondary, spread from forms with old contraction like 'be fire' (25) and 'be a man' (n. 6).

Inanimate stems in PA **-t*, which had mutation of this to PA **č* in the singular (Goddard 1977), generalize Ch |s| (< PA **-č*) as the stem-final consonant:

(26) PA **wi·piči* 'his tooth; (animal) tooth' > Ch *véeʔése* 'tooth'; pl. PA **wi·pitari* → Ch *véesótse* (stem |vées-|).

Possessed noun

The possessed noun paradigms are inherited with few changes; this can be seen from the paradigms of a possessed inanimate noun (27) and a dependent (obligatorily possessed) animate noun (28):

(27) Possessed forms of Ch *moʔkeha* IN 'shoe' (< PA **maskeseni*).[7]

	PA	Ch	Ch ending
Singular noun:			
1s	*nemaskeseni*	namoʔkeha_	|-ø| < PA **-i*
2s	*kemaskeseni*	nemoʔkeha_	|-ø|
3s	*wemaskeseni*	hemoʔkeha_	|-ø|
1p	*nemaskesenena·ni*	namoʔkéhanāne	|-ané| ← **-anó* < PA **-ena·ni*
12	*kemaskesenenawi*	nemoʔkéhanane	|-ane| ← **-ano* < PA **-enawi*
2p	*kemaskesenwa·wi*	nemoʔkéhanēvo	|-evó| ← forms like 28
3p	*wemaskesenwa·wi*	hemoʔkéhanēvo	|-evó| ← forms like 28
Plural noun:			
1s	*nemaskesenari*	namoʔkéhanótse	|-ote| < PA **-ari* INpl
2s	*kemaskesenari*	nemoʔkéhanótse	|-ote|
3s	*wemaskesenari*	hemoʔkéhanótse	|-ote|
1p	*nemaskesenena·nari*	namoʔkéhananótse	|-anóté| ← **-anó*
			(< PA **-ena n-*) + |-té| (< ?)
12	*kemaskesenenawari*	nemoʔkéhananótse	|-anóté| (copies 1p)

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[7] There is also the less common variant Ch *moʔeha*.

2p   *kemaskesenwa·wari   nemo?kèhanevótse |-evóté| ← |-evó| (28) + |-té|
                                                         (< ?)

3p   *wemaskesenwa·wari   hemo?kèhanevótse |-evóté|

(28) Possessed forms of Ch *nétame* AN 'my opposite-sex sibling-in-law'
     (< PA *ni·θemwa).

	PA	Ch	Ch ending
Singular noun:			
1s	*ni·θemwa	nétame	|-ø| < PA *-a (Ch -me restored as part of stem)
2s	*ki·θemwa	étame	|-ø|
3s	*wi·θemo·ri		(Replaced by OBVpl)
1p	*ni·θemwena·na	nétamāne	|-ané| ← forms like 27
12	*ki·θemwenawa	étamane	|-ane| ← forms like 27
2p	*ki·θemowa·wa	étamēvo	|-evó| < PA *-owa·wa
3p	*wi·θemowa·wari		(Replaced by OBVpl)
Plural noun:			
1s	*ni·θemo·ki	nétameo?o	|-o| < PA *-aki ANpl (added to sg.)
2s	*ki·θemo·ki	étameo?o	|-o|
3s	*wi·θemo·hi	hevétáme	|-é| OBV < PA *-o·hi OBVpl
1p	*ni·θemwena·na	nétamaneo?o	|-anéo| ← |-ané| (27) + |-o| < PA *-aki ANpl
12	*ki·θemwenawa	étamaneo?o	|-aneo| ← |-ane| (27) + |-o|
2p	*ki·θemowa·wa	étamevoo?o	|-evóo| ← |-evó| + |-o|
3p	*wi·θemowa·wahi	hevétamevóho	|-evóhó| ← |-evó| + |-óhó| OBV

The first person plural suffixes |-ané| 1p and |-ane| 12 have replaced expected word-final *-o with -e, maintaining the inherited underlying tonal contrast between inclusive and exclusive. There is no specific motivation for this change; it probably was induced by contamination from the conjunct, which has a motivated replacement of *-o by -e in the first plural (56). The historical uncontracted form of the first plural endings (beginning with |a|) has spread from originally non-contracting stems (27) to originally contracting stems (those ending in a Proto-Algonquian semivowel; 28). Conversely, the ending for second and third plural possessor (|-evó|) has been segmented out of contracting stems (28) and extended to non-contracting stems (27). The plural-possessor suffixes combine with the inanimate plural ending to give |-anóté| 1p/12–0p and |-evóté| 2p/3p–0p;

paradigmatic leveling is apparently involved, but the source of the final high tone has not been identified. In |-anóté| 1p–0p the segment |-anó-| must reflect PA *-ena·ni, without the replacement of the final vowel, and the inclusive ending apparently copies this.[8] On animate nouns the plural-possessor suffixes add plural and obviative endings like noun stems (cf. 4, 5, 11, 12).

The possessed-theme formative Ch |-am| (<PA *-em) is used on many nouns (29):

(29) Non-dependent noun ('corpse'; 1) with possessed-theme formative PA *-em:

	PA	Ch	Ch ending
1s	*ne–ema	náséotame	|-am-e| ANsg < PA *-em-a (Ch -me restored)
1s	*ne–emaki	náséotamo	|-am-o| ANpl < PA *-em-aki
3s	*we–emari		(Replaced by OBVpl)
3s	*we–emahi	heséotamo	|-am-o| OBV < PA *-em-ahi OBVpl

The final syllable is restored in the singular, as in most noun stems in Ch |-m| (2). The historical contractions with this suffix are in most cases leveled out by the generalization of the basic shape |-am| (29, 32); compare F neči·pa·ma 'my dead' (< |ne-či·pay-em-a|), the cognate of 29.[9]

The pronominal prefixes on nouns are directly inherited, except that the third person of the dependent PA *i·-stems (28) adds to the inherited v- the productive form of the prefix he- (as in 27). Note that Ch ne- in the second person is the regular reflex of PA *ke-.[10] One dependent PA *o·-stem retains the inherited third-person forms with no prefix ('father'; 15); the other two ('grandmother' [30], 'grandchild') reshape the prefix to match that of the PA *i·-stems:

(30) PA *o·hkwemahi 'his grandmothers' → Ch hevéškemo 'his grandmother(s)'.

The intercalation of PA *t (> Ch |ht|) between a pronominal prefix and

[8] Some languages show old contraction with these endings before the locative ending PA *-enki (Cree [Wolfart 1996:421–2]; F ni·kena·ki, ki·kena·ki 'in our house'); these phenomena do not seem to be connected.

[9] A possessed form without this leveling is Ch namáhpeme 'my water', which is also irregular in having a high tone not present on the simplex (Ch mahpe 'water' < PA *nepyi, with consonant assimilation).

[10] PA *ke- > *kye- (yodation) > *ye- (universal loss of PA *k-) > Ch ne- (Leman 1980; Proulx 1982; Picard 1984; Goddard 1988:348); for another example, see 58. Ch ne- '2' is not a borrowing from Siouan (Michelson 1935:153; Goddard 1967:82, 90 [n. 53]).

a non-dependent vowel-initial stem is continued in Cheyenne possessed nouns (19); synchronically the |ht| replaces word-initial Ch |h-| (31):

(31) PA *askyi 'land, earth', *netaskyi 'my land' > Ch ho?e, náhto?e (19).

The much rarer nouns beginning with Ch |h-| from PA *s- assimilate to this pattern. Vowel-initial nouns (which arise by the loss of PA *k- or *p-) do not insert |ht| (32):

(32) Ch ahke AN 'pitch, gum' (< PA *pekiwa): Ch heahkamo 'his gum'.

With inflectional and derivational suffixes other than *-em that began with PA *e, noun stems in PA *-ay maintain the reflex of the contraction of PA *ay-e to PA *a·> Ch |ó|;[11] after this |ó| the original consonant of the suffix appears, followed by the full, uncontracted form of the suffix:

(33) PA *ako·tayi 'skirt' (as if **akotaya AN) > Ch hoestótse 'dress' AN (|hoehtot-|).[12]

PA **we-wakota·wa·wahi → pre-Ch *hevoestóvóho → Ch hevoestóvevóho 'their dresses' (|-v-ev(ó)-óhó|).

PA **ne-wakota·na·naki → pre-Ch *navoestóneo?o → Ch navoestónaneo?o 'our dresses' (|-n-ané-o|).

PA **akota·hke·- > pre-Ch *hoestóné → Ch é=hoestónáne 'she makes dress(es)' (|-n-ané|; |-ané| < PA *-ehke· 'make X').

Locative

The word-final *-nki of the PA locative ending *-enki would have been lost by sound law, leaving the forms undercharacterized. Short-vowel monosyllabic stems (and perhaps others) ending in a postconsonantal semivowel would have had a locative in Ch |-é|: PA *askinki 'on the earth' (31) > Ch *hó?e (*|ho?é|). The suffix |-é| would also have been expected with stems in PA *-iy like PA *asa·twiya 'poplar' (> Ch hoohtséstse 'cottonwood, tree' |hoóhtet-|): PA *asa·twi·nki 'poplar (loc.)' > Ch *hoóhtse 'cottonwood, tree (loc.)' (*|hoóhtsé|). Although stems of these types are not attested with this locative ending, they were apparently the source of

[11] An alternative, perhaps older, contraction replaced PA *ay-e with PA *e·(see 43); the distibution and history of the two treatments has not been worked out.

[12] This word originally made possessed forms like an *a-stem dependent noun; Cheyenne adds the pronominal prefixes to the inherited third-person-prefixed form.

the locative |-é| that appears with some nouns:

(34) Ch *máheóne* 'at, on, in the house' (|maheón-é|); cf. *máhēóʔo* 'house' (< PA **mehθwika·ni* 'wooden dwelling')

(35) Ch *méóne* 'on the road' (|méon-é|); cf. *meoʔo* 'road' (< PA **mye·hkani* 'made road')

PA *-enki* loc. is retained as Ch |-á| in some forms that are not part of a noun paradigm; the high tone probably reflects the regular vowel lenghtening before PA *nk* after stems of certain shapes:

(36) PA *ešpemenki* 'up, above' > Ch *heʔáma* (|heʔamá|).

Ch |-á| is also found with Cheyenne stems that had PA *-Vw*, pointing to original locatives without contraction; synchronically these have the resegmented ending Ch |-vá|:

(37) PA *wačiwenki* 'mountain (loc.)' > Ch *vósēva* (|vose-vá|); cf. Ch *vose* 'mountain' < PA *wačiwi*).

(38) PA *eškwete·wenki* 'fire (loc.)' (with new stem-initial element [22, n. 5]) > Ch *hoʔéstáva* (|hoʔestá-vá|); cf. Ch *hoʔēsta* 'fire'.

Menominee, Delaware, and Massachusett also appear to reflect locatives without contraction to stems in PA *-Vw*: M *esku·tiah* 'in the fire' (|ɛskotɛ·w-Eh|), Mun *tənté·wənk*, Mass /n8tauut/ (/nōhtāwət/). Whether or not this form was originally non-contracting is an open question, but in any event the uncontracted forms must have existed relatively early in the history of Cheyenne, before final-syllable loss (which would have obliterated the *w) and at a time when the reflex of PA *-enki* was still the productive locative ending. It seems likely that nouns like 'mountain' (37) provided an environment in which the *e of PA *-enki* was lengthened by sound law.

From locatives like that of 'mountain' (37) a new locative ending Ch |-vá| was extracted, and at least some locatives in |-é| (34, 35) optionally add |-vá| to make a new ending |-évá|. These new endings spread further to consonant stems and other synchronic vowel stems:

(39) Ch *máheónéva* 'on the house' (|maheón-évá|; cf. 34).

(40) Ch *méónéva* 'on the road' (|méon-évá|; cf. 35).

(41) Ch *máhpēva* 'in the water' (|mahpe-vá|; n. 9).

Stems in PA *-ay* (33) inherited a locative with contraction to PA *a·,[13] to which the new ending |-vá| was suffixed (42):

(42) PA ****akota·nki* > pre-Ch **hoestǫ* → Ch *hoestǫva* 'on the dress' (|-vá|).

The collective locative Ch |-nó| '(at) ___ place' (< PA **-ina·nki* 'in the land of') is used productively; an archaic form preserves an old pattern of contraction (43):

(43) PA **či·pe·na·nki* 'in the land of the dead' > Ch *séáno* (cf. 1).

PA **-ina·nki* has the irregularity of undergoing contraction as if it began with PA **e*,[14] and Ch *séáno* (43) reflects the contraction of PA **ay-i* (as if *ᵚay-e*) to PA **e·*. Contrast the cognate form F *či·pa·na·ki* 'in the land of the dead', with the vowel quality of the contraction leveled to match that of the uncontracted stem F *či·paya* 'ghost, corpse'. The older contraction to PA *ᵚe·* is preserved in F *ase·hke·wa* 'she tans hide(s)' (*asay-* 'skin' + *-ehke·* AI 'make'), matching O *asse·kke·*, (somehow) in *či·pe·hkohkwe·wa* 'he celebrates a memorial feast' (*či·pay-* + *-ahkohkw-* 'kettle' + *-e·* AI), and in other forms (Goddard 1981:275).

ANIMATE INTRANSITIVE VERBS (INDEPENDENT AND CONJUNCT)

AI independent indicative

The independent-order in Cheyenne has innovations in the pronominal prefixes and in the inflectional suffixes. In the AI (44; Leman 1991:27) there has been some influence from both conjunct order inflections and noun inflections.

(44) AI independent indicative of Ch |mésehe-| AI 'eat' (< PA **mi·čihso-*).[15]

	PA	Ch	Ch ending	
1s	**nemi·čihswi_*	<u>ná</u>=mésehe_	|-$|	← PA -ø
3s	**_mi·čihsowa*	<u>é</u>=mésehe_	|-$|	< PA *-wa*

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[14] Note F *aša·hina·ki* 'in Sioux country', but *ki·ka·po·na·ki* 'in Kickapoo country' (*ki·ka·po·wa* 'Kickapoo') and the form next cited.

[15] PA **mi·čihso-* AI 'eat' is reflected in Cheyenne, Arapaho, Cree, and Menominee.

1p	*ne̱mi·čihswi?mena	ná=méséhéme	|-mé| ← *-ma(ne) (<PA *-?mena) × |-té| 1p (56)[16]
12	*ke̱mi·čihswi?mena	né=mésèhema	|-ma|[17] < PA *-?mena
2p	*ke̱mi·čihswi?mwa	né=mésèhéme	|-mé| ← *-me (< PA *-?mwa) × |-sé| 2p (56)
3p	*_mi·čihsowaki	é=mésèheo?o	|-o| (← nouns, TA; cf. 4, 5, 63)
3'	*_mi·čihswiriwahi (3'p)	é=mésèhóho	|-óhó| (← nouns; cf. 11, 12)

In 44 the singulars have the shape expected for the third person; the lost final syllable (reflected by the abstract morphophoneme |$|) blocks penultimate devoicing, VS, and final-syllable loss. The first plural exclusive and second plural endings are reshaped, with |é| replacing the expected final vowels. With the loss of final syllables and the leveling in the singular forms the second plural would have become identical to the second singular, an intolerable homophony. The repair adopted was to combine the |é| of the corresponding conjunct ending |-sé| 2p (56) with the |m| that characterizes the first and second plural endings of the independent (Goddard 1993b:130–1). There is no strong motivation for the further extension of |é| to the first plural exclusive |-mé| (replacing expected |-ma|); the resulting paradigm does, however, conform to a widespread pattern in which the exclusive and the second plural are identical except for person markers, and the inclusive diverges.[18]

The forms expected for the exclusive and second plural indicative endings before the final -CV was lost are preserved in the dubitative inflection (45; Cheyenne from Leman 1991:37):[19]

[16] The multiplication sign (commonly used to mean "crossed-with" in botanical designations of hybrids) is used here to indicate the contamination of two morphemes.

[17] Less commonly |-mané| 12: né=méséhémáne 'we (incl.) ate' (Leman 1991: 27). Cf. the corresponding interrogative, né=méséhémanehe (Leman 1991:34), and dubitative (45).

[18] The suggestion of a possible influence from Arapaho in these endings (Goddard 1967:81) can be firmly rejected.

[19] They are also preserved in the attributive and negative attributive modes (Leman 1991:38, 39).

(45) AI independent dubitative of Ch |mane-| AI 'drink' (← PA *men-).

	PA		Pre-Ch	Ch dubitative	Ch dubitative ending
1p	*-ʔmena	>	*-mane	mó=ná=manéhemanēhe	|-'he-mane-hé|
2	*-ʔmena	>	*-mane	mó=né=manéhemanēhe	|-'he-mane-hé|
2p	*-ʔmwa	>	*-me	mó=né=manéhemēhe	|-'he-me-hé|

It appears that the dubitative suffix |-hé| (< *-héCV) was added, presumably originally as an enclitic, to a fully inflected word; the shift of the original final PA *-a to Ch |-e| was the regular word-final treatment.

The indicative third plural and obviative forms are innovations that follow the pattern of noun inflection. There is extensive dialectal variation in the obviative (Leman 1987:178, 182). The historically expected endings survive indirectly in the dubitative and interrogative modes (46; Cheyenne from Leman 1991:37), with the elimination of the word-medial morpheme *-ri- from the obviative as in several other languages (Bloomfield 1946:97):

(46) AI independent dubitative and interrogative 3p and 3'.

	PA indicative	Ch dubitative	Ch interrogative
3p	*-waki	|-'he-vo-hé|	|-vo-he$|
3'	*-riwahi (3'p) → *-wahi	|-'he-vo-hé|	|-vo-he$|

The morpheme |-vo| in 46 is the expected outcome of PA *-waki 3p and *-wahi 3'p and must have been the earlier indicative ending as well. The dubitative endings in 46 appear to conform to the synchronic pattern of the interrogative, which always adds its modal suffix |-he$| after pronominal endings that have ostensibly undergone final-syllable loss and, in the first- and second-plural, the subsequent reshaping of the indicative. Historically, however, the interrogative ending |-vohe$| 3p, 3' may continue post-PA *-wahi 3'p, with its final syllable retained before a lost monosyllabic enclitic (see Other Independent Modes, below)

The patterns of umlaut and contraction that occurred before the third-person endings in Proto-Algonquian are eliminated in Cheyenne, and consonant-final stems are restructured as vowel stems. Stems that would have shown variation generalize one variant:

(47) 1s: *kemeʔθekiθeʔmena 'we (inc.) are big' (PA *meʔθekiθe-) > Ch né=maʔhaetama (|maʔhaeta-|).

3s: PA *meʔθekiθwa 'he is big' → Ch é=maʔhaeta (|maʔhaeta-| generalized).

Some verbs have made new stems from the third person singular. When final vowels in polysyllabic words fell together to Ch -e, the third singular ending in most verbs became pre-Ch *-(v)e (< PA *-wa), and this was then generalized to monosyllabic stems, replacing their pre-Ch *-o in this form by -e (48):

(48) PA *menwa 'he drinks it' > pre-Ch *mano → *mane (Ch é=mane)

Subsequently, the new third-person form was generalized as the new stem of some of these verbs (49):

(49) PA *nemene 'I drink it' (stem *men-) → Ch ná=mane (|mane-| generalized)

Like 'drink' (48, 49) are 'die' (50) and, in the singular, 'say (something)' (51):

(50) PA *nep- (PA *nenepe 'I die', *nepwa 'he dies') → Ch |nae-| (Ch ná=naaʔe 1s, é=naaʔe 3s)

(51) PA *ewa 'he says (something)' > pre-Ch *hevo → *heve (extended to Ch ná=heve 1s, né=heve 2s)

Ch =heve (51) must earlier have been used in the third singular as well, though it has been replaced there by another form (100); the v in the first and second singular can only have come from the third person. These forms of 'say (something)' thus directly support the explanation of the stem-final |-e| in 'drink' (48, 49) and 'die' (50) as coming ultimately from the generalization of pre-Ch *-(v)e 3s to monosyllabic stems.

The stem and corresponding final meaning 'stand' also appear to have generalized the shapes they originally had only in the third person independent, where they ended with PA *o· (rather than the PA *awi otherwise reconstructible in these morphemes), which is best explained as arising by contraction before third-person PA *-w:

(52) PA *ni·po·wa 'he stands' (*neni·pawi 1s) > Ch |néé-| (ná=nééʔe 1s, é=nééʔe 3s)

(53) PA *nye·wika·te·ka·po·wa 'he stands on four legs' > Ch é=néveóhtáóóʔe (|-óé|)

The cognate Arapaho–Gros Ventre morphemes for 'stand' show the same

generalization of PA *o·, and additional support for PA *o· as the old contract vowel in the third-person independent forms of 'stand' comes from F *na·ni·sika·po·haki* 'split-feather headdress'.[20]

Stems in PA *n* retain the phonologically regular loss of the final syllable of the singular forms and show other irregularities (54; Cheyenne from Leman 1991:27 and Wayne Leman, personal communication 2000):

(54) AI independent indicative of Ch |oveše(ná)-| AI 'go to bed'
(< PA *kawihšin-).[21]

	PA	Ch	Ch underlying form
1s	*nekawihšine	ná=oveše	|ovexé|
3s	*kawihšinwa	é=oveše	|ovexé|
1p	*nekawihšine?mena	ná=ovešenáme	|ovexenámé|
3p	*kawihšino·ki	é=ovešena	|ovexená|

The stem-final high tones in these forms appear to have diverse origins. The expected third plural form would have been Ch *é=ovešene (*|ovexené|), with *|-é| < PA *-o·ki; most likely the final -a has simply been taken over from other forms in the paradigm. (Regularized é=ovešenao?o 3p also exists.) The longer stem in |-ná| recalls the same class of stems in Menominee, which tend to replace stem-final |-n| with |-nɛ·| (Bloomfield 1962:140). The high tone in the singular may come from the third singular of the conjunct (57).

The pronominal prefixes on verbs have undergone restructuring in most forms (55; Cheyenne from Leman 1981:306). The regular reflexes are continued with the future preverb; these show the generalization of third-person ø- from the intransitive and transitive absolute paradigms to

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[20] Ar *θi·?ó·ku·nó·* 'I stand' (recorded accent varies), has a final |-o·ki·| (perhaps really |-(y)ooki·|) < PA *-ika·po·; Gros Ventre has |ni·ci·-| (*nihni·ci·?* 'I stood up') and |-io·ci·| (Taylor 1994, 2:283–4). The stem of F *na·ni·sika·po·haki* (an archaic word found in traditional texts) is evidently *na·ni·s-* 'nodding down' + *-ika·pa·* 'stand'. Since the Fox agent-noun suffix *-h* generally appears after the form of the stem used in the third person independent, the *o·* in this word (which is otherwise completely unmotivated) indicates that *o·* was once the contraction in the third person form. (Cf. F *atame·ha* 'smoker', from |atama·-| AI 'smoke', *atame·wa* 'he smokes'.) The PA *a· ostensibly reflected in the third-person forms of 'stand' in Fox and Massachusett (Goddard 1991:176) can be explained as having the vowel quality copied from the uncontracted *-awi.

[21] PA *kawihšinwa* 'he lies down' > M *kawe·hsen*; cf. C *kawisimow*, O *kawiššimo* 'he lies down, goes to bed'.

the objective paradigms but otherwise match the prefixes used in pos-
sessed-noun inflection (27). Elsewhere the prefixes on verbs have been
restructured as preverbs, apparently by the incorporation of the preverb PA
*ki·- 'around' as a semantically empty peg (Goddard 1988:356–7, n. 15,
1993a:224, n. 8):

(55) Pronominal prefixes on verbs.

	PA	Ch (with future preverb)[22]	Ch (elsewhere)
1	*ne-	nåhtse= (< PA *ne- + ?)	ná= (← PA *neki·-)
2	*ke-	nèstse= (< PA *ke- + ?)	né= (← PA *keki·-)
3	*we-, *ø-	_tse= (< PA *ø- + ?)	é= (< PA *ki·-)

Several peculiar characteristics exhibited by the usual pronominal prefixes
on Cheyenne verbs are accounted for when it is seen that they derive from
a prefixed preverb. The Cheyenne verbal prefixes do not intercalate |ht|
before an original vowel-initial stem (as the noun prefixes do), and they
behave like preverbs in not triggering HPO. The high tone and the lack of
an initial |h-| in the third person are incompatible with derivation from the
bare prefixes. The appearance of the third person prefix on intransitive
independent indicative forms would be unparalleled in Algonquian. And
finally, these prefixes appear before elements that were originally oblique
complements (Leman 1991:147, 187), which historically could be preceded
by a preverb but not by a prefix alone. In this paper the verbal pronominal
prefixes and other preverbs are set off by a double hyphen (=).

AI conjunct

The AI conjunct indicative (56; Leman 1991:112) continues all the
Proto-Algonquian endings directly, except for the final vowels in the first
plural forms. The conjunct indicative has the preverb *tséh=* 'when', with
sandhi variants conditioned by the following segment.

(56) Conjunct indicative (with *tséh=*) of Ch |mésehe-| AI 'eat' (44).

	PA	Ch	Ch ending	
1s	*mi·čihswiya·ni	=méséhéto	|-tó|	< PA *-ya·ni
2s	*mi·čihswiyani	=mésèheto	|-to|	< PA *-yani

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[22] The future preverb is |-hte| or |-hta| after the first- or second-person prefix,
otherwise only |te|.

1s	*mi·čihswiči	=méseese[23]	|-se| < PA *-či
1p	*mi·čihswiya·nke	=mésehétse	|-té| ← pre-Ch *-tó (< PA *-ya·nke) ×
			|-sé| 2p
12	*mi·čihswiyankwe	=mésehétse	|-té| ← pre-Ch *-to (< PA *-yankwe) ×
			|-sé| 2p
2p	*mi·čihswiye·kwe	=mésehése	|-sé| < PA *-ye·kwe
3p	*mi·čihswiwa·či	=mésehévòse	|-vóse| < PA *-wa·či
3'	*mi·čihswiriči	=mésehetsése	|-tese| < PA *-riči

By sound law the first plural exclusive and inclusive would have fallen together with the first and second singular. This intolerable homophony was eliminated by the replacement of the final vowel in the plural forms with |é|, which was most likely generalized from the second plural ending |-sé| by a form of contamination (Goddard 1993b:130–1).[24]

This replacement of final -o by -e in the first plural endings was then extended selectively to the independent order AI (44) and the possessed-noun paradigm (27, 28), as well as to the TI and TA of both orders (61, 62, 63, 75, 76, 78, 79, 81, 82, 84).

Stems in PA *n have irregularities in the conjunct (57; Leman 1991:112), as in the independent (54):

(57) AI conjunct indicative (with Ch tsé?=) of Ch |oveše(ná)-| AI 'go to bed' (54).

	PA	Ch	Ch underlying form
1s	*kawihšina·ni	=ovešenáto	|ovexenátó|: |-tó| 1s (56)
3s	*kawihšinki	=ovēšése	|ovexése|: |-'se| ← |-'| (< PA *-nki) +
			|-se| 3s (56)
2p	*kawihšine·kwe	=ovešenáse	|ovexenásé|: |-sé| 2p (56)
3p	*kawihšinowa·či	=ovešenávòse	|ovexenávóse|: |-vóse| 3p (56)

These stems generalize stem-final |-ná| (cf. 54) outside the third singular. The third singular has the historically expected ending (showing regular final-syllable loss) with the addition of the regular conjunct AI ending |-se|

[23] The stem internal |h| is lost before a vowel that is subject to devoicing after any other consonant

[24] There can be no doubt that Ch |-sé| 2p conj. is the regular outcome of PA *-ye·kwe, even though there are no other examples of this treatment of PA *y. The regular reflex of PA *θe· is Ch |sé|, and PA *θ and *y fall together in all postvocalic environments (Goddard 1988:351–2). The major stages in this shift (after PA *θ, *y, and *r merged as pre-Ch *r, and after PA *e· > *é), were presumably pre-Ch *ré > *ryé > *tyé > Ch sé.

3s (< PA *-či; 56); the high tone preceding |-se| probably reflects regular vowel lengthening before the PA *nk in stems of certain shapes: PA *kawihšinki 3s > pre-Ch *|ovexé| → Ch |ovexé-se|. The high tone in the independent singular of these verbs (54) is probably from the third person conjunct (57), which the independent singular forms would have rhymed with before the conjunct form added AI |-se| 3s.

INANIMATE INTRANSITIVE VERBS (INDEPENDENT AND CONJUNCT)

II independent indicative

Cheyenne has combined into a single II paradigm the stems that in Proto-Algonquian ended in *n (58) and those that ended in a vowel (59), incorporating elements from both (Cheyenne from Leman 1991:43, 44):

(58) II independent indicative of Ch |nehpohta-| 'be frozen shut' (< PA *kepaten-).[25]

	PA	Ch	Ch ending (PA *n is stem-final)
0s	*kepaten<u>wi</u>	é=nèhpohta_	|-ø| < PA *-n-wi
0p	*kepateno·<u>ri</u>	é=nèhpòhtā<u>nèstse</u>	|-néte| < PA *-n-o·ri
0's	*kepaten<u>eriwi</u>	é=nèhpòhta<u>tse</u>	|-te$| ← PA vowel-stems (59)
0'p	*kepaten<u>eriwari</u>	é=nèhpòhta<u>netòtse</u>	|-netoté| ← ?

(59) II independent indicative of Ch |heóvó-| 'be yellow' (< PA *wesa·wa·-).

	PA	Ch	Ch ending
0s	*wesa·wa·<u>wi</u>	é=heóvo_	|-ø| < PA *-wi
0p	*wesa·wa·<u>wari</u>	é=heóvó<u>nèstse</u>	|-néte| ← PA *n-stems (58)
0's	*wesa·wa·<u>riwi</u>	é=heóvo<u>tse</u>	|-te$| < PA *-riwi[26]
0'p	*wesa·wa·<u>riwari</u>	é=heóvo<u>netòtse</u>	|-netoté| ← PA *n-stems (58)

In the II independent indicative the singular of both original stem-types is inherited directly as a vowel-final form; the obviative singular is made on this, with the ending inherited in the vowel-stems. The plural is directly

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[25] The *n that was part of the stem in Proto-Algonquian has been restructured to be part of some of the endings in Cheyenne.

[26] In 58 and 59 note that there is vowel devoicing before the |-te| in |-néte| inan. pl. (where |-te| is an old final syllable), but no devoicing before |-te$| inan. obv. sg. (where the |-te| is an old penultimate syllable, and devoicing is blocked by the lost-syllable effect, represented by |-$|). Leman and Rhodes (1978) account for this contrast by taking old final-syllable |-Ce| (here |-Ce|) as underlying |-C|, and old penultimate-syllable |-Ce| (here |-Ce$|) as underlying |-Ce|.

Inherited in the *n-stems and extended from these to the original vowel stems. The obviative plural ending |-netoté| must have originated in the *n-stems and seems to be synchronically |-nete| 0' + |-oté| INpl The model for the formation of this ending has not been identified, but the final high tone is matched in the |-té| INpl used after the plural-possessor markers (27).

In the II conjunct (60; Leman 1991:121, 122) all the endings are inherited directly. The original proximate plural and obviative plural participial endings are used for the indicative as well, though "the singular forms are sometimes used with plural inanimate subjects" (Leman 1991:121). Both the proximate singular and the obviative singular forms would always have been the same in the two modes. Forms from original *n-stems are not given but are presumably the same; the PA *nk in the non-obviative forms would have dropped, just like the *k in the vowel stems.

(60) II conjunct indicative (with tséx=) and participle (with tsé=) of Ch |heóvó-| 'be yellow' (59).

	PA participle	Ch	Ch ending
0s	*we·sa·wa·<u>ki</u>	=heóvo_	|-ø| < PA *-ki
0p	*we·sa·wa·<u>kiri</u>	=heóvoo?éstse	|-ete| < PA *-kiri
0's	*we·sa·wa·<u>riki</u>	=heóvotse	|-te$| < PA *-riki
0'p	*we·sa·wa·<u>rikiri</u>	=heóvotsee?éstse	|-teete| < PA *-rikiri

Initial change is eliminated in Cheyenne, and the participle is marked with the preverb tsé= instead: tsé=heóvo '(that) which is yellow'.

TRANSITIVE INANIMATE VERBS (INDEPENDENT AND CONJUNCT)

TI-1 independent indicative

In the independent order, the Cheyenne class 1 TI continues the Proto-Algonquian objective paradigm (61; Cheyenne from Leman 1991:87 and Wayne Leman, personal communication 1999). The second and third singular use the same endings as the first-singular, and the third plural has the same endings as the second plural, with the appropriate prefixes. The class 2 TI and class 3 TI inherit the same set of endings without the theme sign (|-á| or |-ó|).[27]

[27] The TI-2 stems generalize the theme sign PA *-o·(> Ch |-é|) in all paradigms and inflect exactly like the TI-3. For example, Ch |ho?té-| TI-2 'have' continues PA *a?t-o·- 'put (somewhere)', with the incorporation of the theme-sign variant PA *-o·

(61) TI-1 independent indicative of Ch |vóóht-| 'see' (<PA *wa·pant- 'look at').[28]

	PA	Ch	Ch ending
Singular object:			
1s–0s	*newa·panta̲ni̲	ná=vóóhta̲	|-á| < *-e·-n-i ← PA *-a·ni
1p–0s	*newa·pante·(na·)na·ni	ná=vóóhtánóne	|-ánóné| ← *-e·-na·-na·n-i (cf. 27)
12–0s	*kewa·pante·(na·)nawi	né=vóóhtanone	|-ánóne| ← *-e·-na·-naw-i (cf. 27)
2p–0s	*kewa·pante·(na·)wa·wi	né=vóóhtánóvo	|-ánóvó| < *-e·-na·-wa·w-i
3'–0s	*wewa·panta·rini	é=vóohto̲tse̲	|-óte$| < PA *-a·rini
Plural object:			
1s–0p	*newa·panta·nari	ná=vóohtano̲tse	|-ánote| <*-e·-n-ari ←PA *-a·nari
1p–0p	*newa·pante·(na·)na·nari	ná=vóohtanonéstse	|-ánónete| ←*-e·-na·-na·n-ari (cf. 27)
12–0p	*kewa·pante·(na·)nawari	ná=vóohtanonéstse	|-ánónete| ←*-e·-na·-naw-ari (cf. 27)
2p–0p	*kewa·pante·(na·)wa·wari	né=vóohtanovótse	|-ánóvote| ← *-e·-na·-wa·w-ari
3'–0p	*wewa·panta·rinari	é=vóohto̲tseno̲tse	|-ótenote| < PA *-a·rinari
		é=po?óhó̲tseno̲tse	

The reconstruction of the Proto-Algonquian paradigm is uncertain in some details. Here it is assumed that there was a theme sign PA *-e· which was replaced by *-a· before the *-(e)n of the singular-subject forms by an old morphophonemic rule (Goddard 1967:74). Cheyenne, like Cree, has leveled this alternation by generalizing the reflex of *-e·, except that it retains the reflex of *-a· in the obviative-subject form (which Cree does not have from the objective paradigm). The presence of the element PA *-(e)na·- before

(as happened also in Fox, Shawnee, and Ojibwa). Since the TI-2 stems always have the same inflections as those inherited with the TI-3 stems they are not treated separately in this paper.

[28] In Ch |vóóht-| TI-1 the high tone of the final |-óht| is by leveling from occurrences in stems where it would have arisen by sound law from a regularly lengthened vowel (e.g. Ch |po?óht-| 'bite it off' < PA *paθkant-). One form is given from Ch |po?oh-| 'break by tool' (< PA *paθkah-).

the plural proniminal suffixes is problematic, since if it were an old extension of the *-(e)n of the singular the theme sign *-e·would have been replaced by *-a· throughout the paradigm and could not have survived. Nevertheless, the elements making up the Cheyenne endings are clearly identifiable.

The obviative-subject endings Ch |-óte$| 3'–0s (< PA *-a·rini) and |-ótenote| 3'–0p (< PA *-a·rinari) apparently have original PA *-a·, as in the old singular-subject ending PA *-a·ni, where the *-a·was the umlaut of *-e·before *-(e)n; in effect the obviative suffix PA *-ri was transparent to the effects of umlaut processes on stem and theme-sign vowels (cf. Goddard 1979:15 [MP-8d], 92, 115). This ending thus provides significant evidence that the TI-1 paradigm in the ancestor of Cheyenne was like that of Menominee in having the reflex of PA *-a·throughout the singular. The conjunct obviative-subject endings also begin with Ch |-óte| (95), but this is not an inherited sequence and may, in fact, be influenced by the independent forms.

The endings for plural subject on plural inanimate object all show an underlying low tone on the penult; perhaps this has been generalized from the inclusive-subject form, where it would have been inherited. The treatment differs from that in the combinations of what are historically the same morphemes in the plural-possessed forms (27).

TI-1 conjunct indicative

The conjunct of the Cheyenne class 1 TI (62; Leman 1991:132; Wayne Leman, personal communication 1999) derives from Proto-Algonquian with few changes. The number of the object is not distinguished:

(62) TI-1 conjunct indicative (with tséh= 'when') of Ch |vóóht-| 'see' (61):

	PA	Ch	Ch ending
1s–0	*wa·pantama·ni	=vóóhtómo,	|-omó|[29] < PA *-ama·ni
2s–0	*wa·pantamani	=vóohtomo,	|-omo| < PA *-amani
3s–0	*wa·pantanki	=vóóhto	|-ó| < PA *-anki
1p–0	*wa·pantama·nke	=vóohtomātse	|-omaté| ← PA *-ame + |-té| 1p (56)
12–0	*wa·pantamankwe	(same as 1p)	

[29] Perhaps also Ch |-ómó| 1s–0. Some speakers have -e instead of -o in the TI-1 1s–0 and 2s–0 forms; the source of this has not been identified..

2p–0	*wa·pant<u>ame·kwe</u>	=vóoht<u>omāse</u>	|-omasé| ← PA *-ame + |-sé| 2p (56)
3p–0	*wa·pant<u>amowa·či</u>	=vóoht<u>omẽvóse</u>	|-omevóse| < PA *-amowa·či
3'–0	*wa·pant<u>amerìči</u>	=vóoht<u>otsėse</u>	|-ótese| ← |-ó| 3s–0 + |-tese| 3' (56)

Third singular Ch \|-ó\| 3s–0, with high tone from regular lengthening (< PA *-anki), was presumably inherited after stems of certain shapes and generalized.[30] The obviative ending Ch \|-ótese\| 3'–0 adds to this \|ó\| the AI obviative ending \|-tese\|; because the syllable following the \|ó\| is always phonetically devoiced the \|ó\| is always realized with phonetic low tone, but the high tone appears in the corresponding participle of stems ending with a low-tone syllable (95). The first- and second-person plurals have a theme sign \|-oma\| reflecting PA *-ame; this was generalized from the original obviative PA *-ameři and other forms.

TRANSITIVE ANIMATE VERBS (INDEPENDENT AND CONJUNCT)

TA independent indicative, theme 1 (direct)

The TA independent indicative direct (63; Leman 1991:55) continues Proto-Algonquian objective forms. The patterns of modest reshaping have already been seen in other paradigms. The second-singular subject forms have the same endings as the first singular.

(63) TA independent indicative, theme 1, of Ch \|vóom-\| 'see'
     ⸺ (< PA *wa·pam- 'look at').

	PA	Ch	Ch ending
Singular object:			
1s–3s	*newa·pama·wa	ná=vóómo	|-ó| < PA *-a·wa
3s–3's	*wewa·pama·wari		(replaced by 3s–3'p)
1p–3s	*newa·pama·na·na[31]	ná=vóomóne	|-óné| ← *-ónó < PA *-a·na·na (cf. 27)
12–3s	*kewa·pama·nawa	né=vóomone	|-óne| ← *-óno < PA *-a·nawa (cf. 27)
2p–3s	*kewa·pama·wa·wa	né=vóomóvo	|-óvó| < PA *-a·wa·wa
3p–3's	*wewa·pama·wa·wari		(replaced by 3p–3'p)

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[30] For this lengthening, see under *Vowels*, above, and compare the locative \|-á\| and 57.

[31] Menominee, Unami, Munsee, and Massachusett point to PA *-a·wena·na 1p–3s, *-a·wenawa 1p–3s.

Plural object:

1s–3p	*newa·pama·waki	ná=vóom<u>oo</u>ʔo	|-óo| ← |-ó| 1s–3s +|-o| ANpl (< PA *-*aki*)
3s–3'p	*wewa·pama·wahi	é=vóom<u>óho</u> 3s–3'	|-óhó| ← |-(ó)| +|-óhó| OBV (cf. 11, 12)
1p·3p	*newa·pama·na·naki	ná=vóom<u>óneo</u>ʔo	|-ónéo| ← |-óné|1p–3s + |-o| ANpl
12–3p	*kewa·pama·nawaki	né=vóom<u>óneo</u>ʔo	|-óneo| ← |-óne|12–3s + |-o| ANpl
2p–3p	*kewa·pama·wa·waki	né=vóom<u>óvoo</u>ʔo	|-óvóo| ← |-óvó| 2p–3s + |-o| ANpl
3p–3'p	*wewa·pama·wa·wahi	é=vóom<u>ovo</u> 3p–3'	|-óvo| ← |-óv(ó)| + |-o| OBV (cf. 10)

First or second person on obviative:

1s–3'	*newa·pam<u>ema·</u>wahi	ná=vóom<u>amóho</u>	|-amóhó| ← |-am| + |-(ó)| 1s–3s + |-óhó| OBV
1p–3'	*newa·pam<u>ema·na·</u>nahi	ná=vóom<u>amone</u>	|-amóne| ← |-am| + |-ón(é)| 1p–3s + |-e| OBV
12–3'	*kewa·pam<u>ema·</u>nawahi	né=vóom<u>amone</u>	|-amóne| ← |-am| + |-ón(e)| 12–3s + |-e| OBV
2p–3'	*kewa·pam<u>ema·wa·</u>wahi	né=vóom<u>amovo</u>	|-amóvo| ← |-am| + |-óv(ó)| 2p–3s + |-o| OBV

The first-plural suffixes are reshaped as in other paradigms (27, 61). The plural- and obviative-object forms are made by adding the plural or obviative suffix to the form of the ending used with singular objects, as in noun inflection (4, 5, 10, 11, 12). The unreshaped ending was inherited in some interrogative forms, e.g. *é=vóomovohe* 'did he see him or them (obv.)?' (Leman 1991:74); descriptively this ending is Ch \|-ovo\| (< PA *-*a·wahi* 3s–3'p, with tone lowering) + \|-he$\| interr., but historically it is more likely Ch *\|-ovohe\| (< PA *-*a·wahi* 3s–3'p, with tone lowering) + \|-$\| interr. (< PA *=CV; see Other Independent Modes, below).

Some speakers ("Old Dialect"; 64) have \|-o\| 3s–3' rather than \|-óhó\| after TA stems with an underlying high tone in the final syllable, like Ch \|méót-\| 'fight' (< PA *mi·ka·θ-), while others ("New Dialect"; 65) have \|-óhó\| (Leman 1987:178, 180):

(64) Ch *é=méoto* 'he fights him (obv.)'; ending \|-o\| ← \|-(ó)\| + \|-o\| OBV

(65) Ch *é=méótóho* 'he fights him (obv.)'; ending \|-óhó\| ← \|-(ó)\| + \|-óhó\| OBV

Apparently the word-final obviative suffixes go back in some way to the endings used in Proto-Algonquian for obviative plurals, but the details of their history and formation are not clear. The endings for first or second person acting on obviative are characterized by a thematic element Ch |-am| (< PA *-em) before the theme sign. The suffixes that follow |-am| have the Old Dialect pattern of marking obviative objects: the last vowel of the corresponding singular-object ending is dropped before the word-final obviative suffix, which is |-óhó| if the next preceding vowel is short and |-o| if it is long. The same pattern of selection found in the Old Dialect is found in noun inflection (10, 11, 12), but the presence of |ó| in the longer ending seems to point to the TA direct verb inflection as the proximate source. The endings for first plural on obviative replaced expected word-final pre-Ch *-o (from |-o| OBV) with -e, as in other paradigms.

TA third-person passives (indefinite-subject forms)

Missing from the inherited TA direct forms in 63 are those of the third-person passive (PA *-a·wa X–3s, *-a·waki X–3p), which is entirely restructured in Cheyenne (forms in Leman 1991:55–68). The impetus for this may have been that, with the generalization of the third-person prefix, the passive would have differed from the third-on-third active form only by the absence of an obviative ending. In any event, Cheyenne has in the inflectional paradigms new third-person passives derived as a class from Proto-Algonquian secondary derivatives. The commonest type follows the pattern of the old middle reflexives (Bloomfield 1946:108–9; Goddard 1979:63–64), which were derived from TA consonant stems by adding PA *o[32] (66, 67), with replacement of *θ by PA *s (68). Some Cheyenne third-person passive stems have shapes that appear to be directly inherited from such middle reflexives (66, 67, 68):

(66) PA *wa·pam- TA 'look at' > Ch |vóom-| 'see' (63);

      PA *wa·pamo-[33] AI (mid. refl.) > Ch |vóome-| (3d-person passive stem):

      Ch é=vóome X–3 'he was seen', é=vóomeʔo X–3p 'they were seen'.

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[32] The middle reflexives had PA *-o immediately before third-person *-w and PA *-wi in other forms; the conventional reconstruction of these stems with PA *-o conveniently distinguishes them from the AI stems that have PA *-wi throughout.

[33] Cf. F wa·pamowa, C wa·pamow 'he looks at his (own) reflection'.

(67) PA *peʔtešw- TA 'cut accidentally' > Ch |aʔtas-|;

PA *peʔtešo- AI (mid. refl.) 'accidentally cut oneself':[34]

Ch é=aʔtaxe X–3 'he was accidentally cut'.

(68) PA *mi·ka·θ- TA 'fight' > Ch |méót-|;

PA *mi·ka·so- AI (mid. refl.):[35]

Ch é=méohe X–3 'he was fought against'.

The appearance of this pattern with some stems is an innovation (69):

(69) PA *amw- TA 'eat' → Ch |mév-|:[36]

Ch é=meve X–3 'he is eaten' (as if PA **mi·w-o- AI).

Another type of Cheyenne third-person passive stem incorporates the suffix Ch |-óhe| (<PA *-a·so) of the Proto-Algonquian derived passives or verbs of undergoing (Goddard 1990:476), as with the verb in 70, which did not make a middle reflexive in Proto-Algonquian:

(70) PA *eθ- TA 'say (something) to' > Ch |het-|; PA *et- TI-1 > Ch |hest-|:

Ch é=hestohe X–3 'he was told, called (something)' (as if PA **et-a·so-AI).[37]

Third-person passives with Ch |-óhe| are regularly formed to stems containing the abstract final Ch |-ov| (< PA *-aw), which this suffix replaces:

(71) PA *no·hsaw- TA 'follow' > Ch |néhov-| TA 'chase':[38]

Ch é=néhohe X–3 'he was chased' (stem |néhóhe-|).

This formation does not seem to have direct roots in Proto-Algonquian (as

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[34] Cf. F pehtešowa, M peʔtesow.

[35] Cf. O mi·ka·so 'he fights'.

[36] Shape influenced by PA *mi·či- TI-3 'eat (it)' > Ch |mése-|. Several languages appear to reflect PA *mw- TA: e.g., M mi·w 'he eats him', Mun mhwé·w.

[37] Cf. F ina·so- AI, ita·te·- II '(something) is said to, of him, it'; but some derived AI passives add *-a·so AI to a TI stem: F se·saha·sowa 'he (as a kettle) is stored away safely' (cf. se·sahwe·wa TA, se·sahamwa TI).

[38] Apparently only Cheyenne reflects the verb PA *no·hsaw- TA, *no·hs- TI-1 'follow', but several languages reflect the derived intitial PA *no·hs(a)w-: C no·so·skawe·w TA, no·so·skam TI 'he follows after him, it'; M nu·hsu·hkiwεw 'he pursues a woman'; archaic Mun no·sóhkamən 'I follow it'; Mass /wunnooswushshon/ (/wənōhswəhšąn/) 'he (a boundary) follows along it'; EAb nənóhsohkamən 'I follow it'.

if PA **$no \cdot hsa \cdot so$-). The middle reflexives of stems in PA *-*aw* TA originally had stable (non-umlauting) PA *-*a·* AI (Goddard 1979:65-66); apparently in the passives of stems like 71 the expected Ch |-ó| (< PA *-*a·*) was reshaped to Ch |-óhe| under the influence of the other passive stems.

These third-person passive stems are used in the conjunct as well as the independent (Leman 1991:125):

(72) Conjunct indicative TA third-person passives.

Ch *tséh=vóomése* X–3 'when he was seen' ← |vóome-| (66) + |-se| 3s (56)
Ch *tséh=vóomēvóse* X–3p 'when they were seen' ← |vóome-| + |-vóse| 3p

Many verbs also use the same stems for the TI passive (73). These are inflected like II verbs (Leman 1991:87-89); conjunct forms are not given.

(73) TI passive (stem matches TA third-person passive).

é=vóome X–0 'it was seen' (66);
é=vóomēnéstse X–0p 'they (inan.) were seen'.
é=a?taxe X–0 'it was accidentally cut' (67).
é=né=hestohe X–0 'that was said' (70).[39]

Other verbs have TI passives with different stems (74):

(74) TI passive (stem differs from TA third-person passive).

é=méséstove X–0 'it is eaten'

The stem in 74 is derived from Ch |mése-| 'eat (it)' (< PA *$mi \cdot \breve{c}i$- TI-3) by means of a suffix |-htove| that also forms third-person passives to transitivized AI verbs (AI+O; 104) used with a secondary object (Leman 1991:67–68).

The restructuring of the TI passives was presumably a response to the falling together of the inherited independent-order passive (PA *-*a ·ni*) with the third-on-inanimate form (PA *$we - a \cdot ni$*), which would have resulted from the generalization of the third-person prefix.

TA independent indicative, theme 2

The TA inverse (75; Leman 1991:55) continues objective forms; the few reshapings are found in other paradigms. The second-singular object forms have the same endings as the first singular.

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[39] The preverb Ch |ne| (< PA *eni 'that inan. (anaphoric)') is used as a default (expletive) deictic complement of relative roots.

(75) TA independent indicative, inverse, of Ch |vóom-| 'see' (63).

	PA	Ch	Ch ending

Singular subject:

3s–1s	*newa·pam<u>ekwa</u>	ná=vóom<u>a</u>	|-a| < PA *-ekwa
3's–3s	*wewa·pam<u>eko·ri</u>		(replaced by 3'p–3's)
3s–1p	*newa·pam<u>ekwena·na</u>	ná=vóom<u>aēne</u>	|-aené| ← *-aenó
			< PA *-ekwena·na
3s–12	*kewa·pam<u>ekwenawa</u>	né=vóom<u>aene</u>	|-aene| ← *-aeno
			< PA *-ekwenawa
3s–2p	*kewa·pam<u>ekowa·wa</u>	né=vóom<u>aēvo</u>	|-aevó|
			< PA *-ekowa·wa
3's–3p	*wewa·pam<u>ekowa·wari</u>		(replaced by 3'p–3'p)

Plural subject:

3p–1s	*newa·pam<u>eko·ki</u>	ná=vóom<u>āā?e</u>	|-aé| < PA *-eko·ki
3'p–3s	*wewa·pam<u>eko·hi</u>	é=vóom<u>āā?e</u>	|-aé| < PA *-eko·hi
3p–1p	*newa·pam<u>ekwena·naki</u>	ná=vóom<u>aeneo?o</u>	|-aenéo| ← |-aené|
			3s–1p + |-o| ANpl
3p–12	*kewa·pam<u>ekwenawaki</u>	né=vóom<u>aeneo?o</u>	|-aeneo| ← |-aene|
			3s–12 + |-o| ANpl
3p–2p	*kewa·pam<u>ekowa·waki</u>	né=vóom<u>aevoo?o</u>	|-aevóo| ← |-aevó|
			3s–2p + |-o| ANpl
3'p–3p	*wewa·pam<u>ekowa·wahi</u>	é=vóom<u>aevóho</u>	|-aevóhó| ← |-aev(ó)|
			+|-óhó| (cf. 63)

Obviative on first or second person:[40]

3'–1s	*newa·pam<u>ekweriwahi</u>	ná=vóom<u>aetsenoto</u>	|-aetenoto|
3'–1p	*newa·pam<u>ekwena·nahi</u>	ná=vóom<u>aetsenone</u>	|-aetenóne|
3'–12	*kewa·pam<u>ekwenawahi</u>	né=vóom<u>aetsenone</u>	|-aetenóne|
3'–2p	*kewa·pam<u>ekowa·wahi</u>	né=vóom<u>aetsenovo</u>	|-aetenóvo|

The Cheyenne obviative-subject endings have obviative suffixes that go
back to those used in Proto-Algonquian only for obviative plurals. The
endings for obviative on first or second person have been taken over from
the double-object paradigm (TA+O; See Other Inherited Verbal Mor-
phemes, below), where they indicate an obviative subject, a first or second
person primary object, and an obviative secondary object (Leman

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[40] The Proto-Algonquian reconstruction follows Cree (Ellis 1971:88; Wolfart
1996:413). It is an open question whether the obviative marker PA *-ri should be
reconstructed in the plural-object forms, as in the Plains Cree endings that Lacombe
(1874:table opp. p. 136) gives as relational.

1991:106).[41] They include Ch |-te| OBV (< PA *-*ri*) after the inverse theme sign Ch |-ae| (< PA *-*ekwe*).

The TA inverse inanimate-subject paradigm (76; Leman 1991:101) also has few innovations. The second and third singular have the same endings as the first singular, and the third plural has the same endings as the second plural. The suffixes after the theme sign directly match those of the TI-1 (61), with plural subjects marked like the TI plural objects.

(76) TA independent indicative inanimate-subject forms of Ch |ho?ehót-| 'come to'.[42]

	PA	Ch	Ch ending
Singular subject:			
0s–1s	*ne–<u>ekweni</u>	ná=ho?ehót<u>aa?e</u>	|-ae| < PA *-*ekweni*
0s–1p	*ne–<u>ekwe(na·)na·ni</u>	ná=ho?ehót<u>aenóne</u>	|-aenóné| ← *|-aenónó| < *-*ekw-ena·-na·n-i*
0s–12	*ke–<u>ekwe(na·)nawi</u>	né=ho?ehót<u>aenone</u>	|-aenóne| ← *|-aenóno| < *-*ekw-ena·-naw-i*
0s–2p	*ke–<u>ekwe(na·)wa·wi</u>	né=ho?ehót<u>aenóvo</u>	|-aenóvó| < *-*ekw-ena·-wa·w-i*
0s–3'	*we–<u>ekwerini</u>	é=ho?ehót<u>aetse</u>	|-aete$| < PA *-*ekwerini*
Plural subject:			
0p–1s	*ne–<u>ekwenari</u>	ná=ho?ehót<u>aenótse</u>	|-aenote| < PA *-*ekwenari*
0p–1p	*ne–<u>ekwe(na·)na·nari</u>	ná=ho?ehót<u>aenonèstse</u>	|-aenónéte| ← |-aenóné| 0s–1p + |-te| INpl
0p–12	*ke–<u>ekwe(na·)nawari</u>	né=ho?ehót<u>aenonèstse</u>	|-aenónete| ← |-aenóne| 0s–12 + |-te| INpl
0p–2p	*ke–<u>ekwe(na·)wa·wari</u>	né=ho?ehót<u>aenovòtse</u>	|-aenóvóte| ←|-aenóvó| 0s–2p + |-te| INpl
0p–3'	*we–<u>ekwerinari</u>	é=ho?ehót<u>aetsenòtse</u>	|-aetenote| < PA *-*ekwerinari*

Cheyenne also has a full set of TA inverse forms for inanimate obviative

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[41] The tone of the 3'–2p ending should be the same as that of the 3'–2p+3' ending (Wayne Leman, personal communication 2000).

[42] Ch |ho?ehót-| TA 'come to' < PA **saskweh*θa·θ-*; this is the applicative of Ch |ho?ehné-| 'arrive' (< PA *saskwehθe·-; > Ar |no?ise·-|).

subject (Leman 1991:101). These add Ch |-te| OBV after the theme sign |-ac|: *ná=ho?éhótaetse* 'it (obv.) came to me'; *ná=ho?éhótaetsenonéstse* 'they (inan. obv.) came to us (excl.)'.

The first- and second-person passive (77; Leman 1991:55) shows the theme sign in the form it also has in Menominee and Eastern Algonquian (as if PA ****-eke·*; Goddard 1967:85). This is followed by the usual AI endings. The second singular has the same ending as the first singular.

(77) TA independent indicative first- and second-person passive of Ch |vóom-| 'see' (63).

	PA	Ch	Ch ending
X-1s	*newa·pam<u>eko·?</u>mi	ná=vóom<u>āne</u>	|-ané| < *-eke·* ← PA *-eko·?mi*
X-1p	*newa·pam<u>eko·?</u>mena	ná=vóom<u>anéme</u>	|-anémé| ← |-ané| + |-mé| 1p (44)
X-12	*kewa·pam<u>eko·?</u>mena	né=vóom<u>anema</u>	|-anéma| ← |-ané| + |-ma| 12 (44)
X-2p	*kewa·pam<u>eko·?</u>mwa	né=vóom<u>anéme</u>	|-anémé| ← |-ané| + |-mé| 2p (44)

TA conjunct indicative with third-person objects

The conjunct TA forms with third-person objects (78; Leman 1991:125) show both archaisms and innovations:

(78) TA conjunct indicative direct (with Ch *tséh=* 'when') of |vóom-| 'see' (63).

	PA	Ch	Ch ending
First or second person on third, third on obviative:			
1s–3s	*wa·pam<u>aki</u>	=vóom<u>o</u>	|-o| < PA *-aki*
1s–3p	*wa·pam<u>akwa·wi</u>	=vóom<u>ōno</u>	|-onó| < PA *-akwa·wi*
2s–3s	*wa·pam<u>ači</u>	=vóom<u>ōse</u>	|-ose| < PA *-ači*
2s–3p	*wa·pam<u>atwa·wi</u>	=vóom<u>ōse</u>	|-osé| ← *-osó* < PA *-atwa·wi*
3s–3'	*wa·pam<u>a·či</u>	=vóóm<u>ōse</u>	|-óse| < PA *-a·či*
1p–3	*wa·pam<u>akenči</u>	=vóom<u>ōtse</u>	|-oté| ← |-o| + |-té| 1p (56)
12–3	*wa·pam<u>ankwe</u>	(same as 1p)	
2p–3	*wa·pam<u>e·kwe</u>	=vóom<u>ōse</u>	|-osé| ← |-o| + |-sé| 2p (56)
3p–3'	*wa·pam<u>a·wa·či</u>	=vóom<u>ōvóse</u>	|-ovóse| ← PA *-a·wa·či* (tone lowered)
First or second person on obviative:			
1s–3'	*wa·pam<u>emaki</u>	=vóom<u>amo</u>	|-amo| < PA *-emaki*
2s–3'	*wa·pam<u>emači</u>	=vóom<u>amóse</u>	|-amose| < PA *-amači*
1p–3'	*wa·pam<u>emakenči</u>	=vóom<u>amōtse</u>	|-amoté| ← |-am| + |-oté| 1p–3

12–3′ *wa·pam<u>emankwe</u>   (same as 1p)
2p–3′ *wa·pam<u>eme·kwe</u>   =vóom<u>amōse</u> |-amosé| ← |-am| + |-osé| 2p–3

The first and second singular forms have separate endings for plural object which continue Proto-Algonquian endings with suffixed *-wa·w that are also reflected in Cree, Menominee, and Ojibwa. Similar endings presumably also existed in the first- and second-plural subject forms as well, as in these other languages. The ending |-osé| 2s–3p shows the replacement of -o by -e, as in other plural forms (e.g., 6, 27, 44); this results in homophony with |-osé| 2p–3.

The plural-subject endings have been rebuilt on an ostensible theme sign |-o| (with low-tone, as if PA *-a); this was generalized from the first and second singular, where it was part of the pronominal endings. The obviative-object endings have the inherited obviative-object thematic element Ch |-am|.

TA conjunct indicative, inverse and third-person on first and second

In Proto-Algonquian the TA conjunct forms that correspond to the inverse of the independent order were made on theme 2 (for obviative on proximate and for inanimate on third person), theme 3 (for first person object), and theme 4 (for second person object) (Goddard 1979:133). In Cheyenne, only endings for first or second singular objects retain traces of forms built on themes 3 and 4; all other forms are built on theme 2. Forms with plural object originally distinguished singular and plural subject, but Cheyenne does not make this distinction in the innovated endings for these subject-object combinations. For inanimate subjects, which are undifferentiated for number, there are special forms with first and second singular objects, but with other objects the same forms are used as for third-person or obviative subjects.

(79) TA conjunct indicative inverse and non-third object
       (with Ch tséh= 'when') of |vóom-| 'see' (63).

PA	Ch	Ch ending

Third person on first or second, obviative on third:

3s–1s *wa·pam<u>ici</u>   =vóom<u>ā ?èse</u> |-a?ése| ← |-a?é| + *|-ese|
                                                 (< PA *-ici)

3p–1s *wa·pam<u>iwa·ci</u>   =vóom<u>a ?évòse</u> |-a?évóse| ← |-a?é| + *|-evóse|
                                                 (< PA *-iwa·ci)

1s-2s	*wa·pameθki	=vóomátaʔe	|-ataʔe| (with IAH) ← |-at| + |-aʔe| (< PA *-eθki)
1p-2s	*wa·pameθkwa·wi	=vóomataʔōse	|-ataʔosé| ← |-ataʔe| 3s–2s + |-osé| 2s–3p (78)
1'-3s	*wa·pamekweči	=vóomaaʔèse	|-aese| < PA *-ekweči
1-1p	*wa·pamiyamenči	=vóomaëtse	|-aeté| ← |-ae| + |-té| 1p (56)
1-12	*wa·pameθankwe	(same as 1p)	
1-2p	*wa·pameθa·kwe	=vóomaëse	|-aesé| ← |-ae| + |-sé| 2p (56)
1'-3p	*wa·pamekowa·či	=vóomaëvóse	|-aevóse| < PA *-ekowa·či

Obviative on first or second singular:

1'-1s	*wa·pamiriči	=vóomaʔetsèse	|-aʔétese| ← |-aʔé| + *|-etese| (< PA *-iriči)
1'-2s	*wa·pamemeθki[43]	=vóomataʔōse	|-ataʔosé| (= 3p–2s)

Inanimate on first or second singular (with Ch *tséx*= 'when');
   Ch \|hoʔehót-\| 'come to' (76):

0-1s	*-iki	=hoʔehótaʔéto	|-aʔétó| ← |-aʔé| + |-tó| 1s (56)
0-2s	*-eθki	=hoʔehótaʔeto	|-aʔeto| ← |-aʔe| (< PA *-eθki) + |-to| 2s (56)

The original inverse forms in 79 are directly inherited: \|-aese\| 3'–3s < PA *-ekweči; \|-aevóse\| 3'–3p < PA *-ekowa·či. The plural-object forms are innovations consisting of the inverse theme sign (\|-ae\| < PA *-ekwe) followed by the AI endings (56); they are used with third person animate or inanimate subjects, whether singular, plural, or obviative. Similar but independent changes in these endings are found in modern Plains Cree, Arapaho, the Delaware languages, and Massachusett.

The endings for third person proximate, obviative, and inanimate on first or second singular show complex rebuilding. For a first-singular object there is an ostensible theme sign \|-aʔé\|. For animate subjects this \|-aʔé\| is followed by suffixes that match the historically expected endings: \|-ese\| (< PA *-iči 3s–1s), \|-evóse\| (< PA *-iwa·či 3p–1s), \|-etese\| (< PA *-iriči); synchronically these endings have the AI suffixes \|-se\|, \|-vóse\|, \|-tese\| (56). For an inanimate subject, \|-aʔé\| is followed by the first-singular AI ending \|-tó\|. The impetus for the rebuilding of these endings is probably the fact that the inherited conjunct forms for third person on first singular would have been homophonous with the new third-person passives (72) in many verbs:

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[43] The reconstruction is based on Swampy Cree and Attikamek *-imisk-* 3'–2s (cf. Plains Cree *-iyisk*) and F *-emenakwe* 3'–12 (Goddard 1995:129).

(80) Expected outcome of conjunct endings for third person on first singular.

	Proto-Algonquian	Expected Cheyenne	Cheyenne Passive
3s–1s	*wa·pamiči >	*tséh=vóomése	tséh=vóomése X–3 (72)
3p–1s	*wa·pamiwa·či >	*tséh=vóomēvóse	tséh=vóomēvóse X–3p (72)

This circumstance triggered the differentiation of the first-singular object endings by the inclusion in them of a new theme sign |-a?é| that reinforced their intended function. This new element was the inherited ending for third person acting on second singular (*|-a?e| < PA *-eθki 3s–2s, 0–2s), in the attenuated function of a sort of theme sign for third person acting on non-third; it adds a high tone of uncertain origin (79).

Subsequently, it would appear, the ending for third singular on second singular was itself renewed. The inherited ending for either an animate or inanimate subject would have been *|-a?e| (< PA *-eθki), descriptively an opaque portmanteau morpheme that fused together the theme sign and the third person suffix. For an animate subject, this was replaced by |-ata?e| 3s–2s (79), which adds |-at|, the inherited prevocalic form of the fourth theme sign (< PA *-eθ), and shows IAH. The ending |-ata?osé| 3p–2s (79) is made from |-ata?e| 3s–2s by adding |-osé| 2s–3p (78) in the attenuated function of a third-person pluralizer; this is also used for an obviative subject. For an inanimate subject, the inherited |-a?e| added the second-singular AI ending |-to|.

TA conjunct indicative first and second person passive

The first- and second-person conjunct passives (81; Leman 1991:125; Wayne Leman, personal communication 1999) have replaced all the Proto-Algonquian endings (originally made on themes 3 and 4) with ones consisting of the theme sign |-ané| from the independent order (77) followed by the AI endings (56):

(81) TA conjunct first- and second-person passives (with Ch tséh= 'when') of |vóom-| 'see' (63).

	PA	Ch	Ch ending
X–1s	*wa·paminki	=vóomanéto	|-anétó| ← |-ané| + |-tó| 1s (56)
X–2s	*wa·pameθenki	=vóomaneto	|-anéto| ← |-ané| + |-to| 2s (56)
X–1p	*wa·paminamenki	=vóomanétse	|-anété| ← |-ané| + |-té| 1p (56)
X–12	*wa·pameθenakwe	(same as 1p)	
X–2p	*wa·pameθena·kwe	=vóomanése	|-anésé| ← |-ané| + |-sé| 2p (56)

TA themes 3 and 4, independent and conjunct indicative

The endings for second person acting on first (82, 83; Leman 1991:55, 125) use the third theme sign Ch |-e| (< PA *-i*):

(82) TA independent indicative theme 3 of |vóom-| 'see' (63).

PA	Ch	Ch ending
2s–1s *kewa·pami	né=vóome	|-e| < PA *-i*
2p–1s *kewa·pami?mwa	né=vóomēme	|-emé| ← |-e| + |-mé| 2p (44)
2–1p *kewa·pami?mena	né=vóomemeno	|-emeno| ← |-e| + |-meno(ne)| (<?)

The second-plural subject ending incorporates the innovated AI suffix |-mé| 2p (44). Since the innovated AI exclusive suffix is also |-mé|, its use in the first-plural object form would have produced unacceptable homophony, and it was replaced by a suffix |-meno(ne)| of unknown origin. The longer form of this appears in the dubitative: *mó=né=vóoméhemenonéhe* 'you must have seen us' (|-e-he-menone-hé|).

In the theme 3 conjunct (83), the first-singular object endings are directly inherited, and the first-plural object ending is analogical to the independent:

(83) TA conjunct indicative theme 3 (with Ch *tséh*= 'when') of |vóom-| 'see' (63).

PA	Ch	Ch ending
2s–1s *wa·pamiyani	=vóometo	|-eto| < PA *-iyani*
2p–1s *wa·pamiye·kwe	=vóomēse	|-esé| < PA *-iye·kwe*
2–1p *wa·pamiya·nke	=vóomemenoto	|-emenoto| ← |-emeno| (82) + |-to| 2s (56)

The ending |-emenoto| 2–1p was produced by proportional analogy: |-e| 2s–1s indep. : |-eto| 2s–1s conj. :: |-emeno| 2–1p indep. : X (X = |-emenoto| 2–1p conj.).

The endings for first person acting on second (84, 85; Leman 1991:55, 125) have the fourth theme sign Ch |-ate|. In the independent indicative (84) the pronominal endings are the same as those used with theme 3 (82):

(84) TA *independent indicative theme 4* of |vóom-| 'see' (63).

PA	Ch	Ch ending
1s–2s *kewa·pameθe	né=vóomàtse	|-ate| < PA *-eθe*
1s–2p *kewa·pameθe?mwa	né=vóomatsēme	|-atemé| ← |-ate| + |-mé| 2p (44)
1p–2 *kewa·pameθe?mena	né=vóomatsemeno	|-atemeno| ← |-ate| + |-meno(ne)| (82)

The ending |-ate| 1s–2s was directly inherited from PA *-eθe, with the regular shift of the word-final vowel to Ch |e|; subsequently |-ate|, with its innovated vowel, replaced the fourth theme sign everywhere in the independent (where it was PA *-eθe) and the conjunct (where it was PA *-eθ).

The theme 4 conjunct (85) thus has the theme sign |-ate| from the independent (84):

(85) TA conjunct indicative theme 4 (with Ch *tséh*= 'when') of |vóom-| 'see' (63).

	PA	Ch	Ch ending
1s–2s	*wa·pameθa·ni	=vóom<u>a</u>tse	|- at<u>é</u>| ← *-*ató* < PA *-eθa·ni*
1s–2p	*wa·pameθakokwe	=vóom<u>a</u>ts<u>ē</u>se	|-atesé| ← |-ate| + |-sé|
			2p (56, 83)
1p–2	*wa·pameθa·nke	=vóom<u>a</u>ts<u>emenoto</u>	|-atemenoto| ← |-ate| +
			|-menoto| (83)

The ending |-até| 1s–2s includes no overt pronominal suffix. By sound law Ch *|-ató| (< PA *-eθa·ni* 1s–2s) would have been expected, but with the replacement of the fourth theme sign everywhere by |-ate| the final vowel was shifted to Ch -e, with the inherited underlying high tone retained. The other endings have pronominal suffixes like those used with theme 3 (83).

Irregular TA stems

Several classes of TA stems have variant shapes before some theme signs; these have their origins in Proto-Algonquian.

TA stems in PA *-θ* replaced this by *-š* before *i (as in theme 3) by one of the processes conventionally called mutation (Bloomfield 1946:92, 1962:81–82; Goddard 1977). Continuing this, Cheyenne stems in |t| generally replace this by |x| (š or x) before |e| (Leman 1991:57, 58, 225) (86):

(86) TA stems with mutation of Ch |t| before |e| (independent indicative).

	PA	Ch	Ch stem
2s–1s	*kemi·ka·ši	né=méo<u>x</u>e	Ch |méót-| TA 'fight' < PA *mi·ka·θ-*
2s–1s	*keteši	né=he<u>š</u>e	Ch |het-| TA 'say (something) to' < PA *eθ-*

The Cheyenne stem |mét-| 'give to' has a |t| that goes back to a PA *r, which did not mutate, and it keeps |t| (Leman 1991:104) (87):

(87) TA stem in Ch |t| with no mutation.

	PA	Ch	Ch stem
2s–1s	*kemi·ri	né=metse	Ch |mét-| TA 'give to' < PA *mi·r-

This is a remarkable archaism, which among languages that merge PA *θ and *r is shared only by Shawnee (Goddard 1994:190).

TA stems in PA *-Cθ had the same mutation, which is also continued (Leman 1991:226) (88):

(88) TA stem with mutation of Ch |ʔh| from PA *ʔθ.

	PA	Ch	Ch stem
2s–1s	*kekweʔši	né=eʔše	Ch |eʔh-| TA 'fear' < PA *kweʔθ-

The mutation in clusters is generalized to stems in PA *-Cr (Leman 1991:226) (89):

(89) TA stem with mutation extended to Ch |ʔh| from PA *ʔr.

	PA	Ch	Ch stem
2s–1s	*keneʔri	né=naʔxe	Ch |naʔh-| TA 'kill' < PA *neʔr-

TA stems in PA*-Cw lost the *w at various stages depending on the following environment, resulting in alternations that Cheyenne retains (Leman 1991:59, 64–66, 226). With themes 2 and 4, PA *Cwe > *Co > Ch |Ce| (90), and with theme 3, PA *Cwi > Ch |Ce| (90, 91, 92), with no reflex of the *w. In contrast, the historically expected contraction with the obviative-object thematic suffix |-am| is leveled out, with the loss of any reflex of the *w (90, 91). Before PA *a· (theme 1) and *a, stems in PA *Cw retained the *w as pre-Ch *y, which is either reflected as Ch |n| (following Ch |h| or |ʔh|; 91, 92) or lost after affecting the preceding consonant (pre-Ch |x| > Ch |s|; 90):

(90) TA stem in Ch |-s| (< PA *šw).

	PA	Ch	Ch stem
2s–1s	*kepeʔtešwi	né=aʔtaxe	Ch |aʔtas-| TA 'cut accidentally' < PA *peʔtešw-
3s–2s	*kepeʔtešwekwa	né=aʔtaxe	

1s–2s	*kepeʔtešweθe	né=aʔtaxèstse[44]
2s–3s	*kepeʔtešwa·wa	né=aʔtāso
2s–3′p	*kepeʔtešwema·wahi	né=aʔtáxamóho

(91) TA stem in Ch |-hn| (< PA *hw).

	PA	Ch	Ch stem
2s–1s	*kepaθkahwi	né=poʔohe	Ch |poʔohn-| TA 'break off by tool' < PA *paθkahw-
2s–3s	*kepaθkahwa·wa	né=poʔōhno	
2s–3′p	*kepaθkahwema·wahi	né=poʔóhamóho	

(92) TA stem in Ch |-ʔhn| (< PA *ʔsw).

	PA	Ch	Ch stem
2s–1s	*kewanehθaʔswi	né=vonàhoʔhe	Ch |vonahoʔhn-| TA 'destroy by burning'[45]
2s–3s	*kewanehθaʔswa·wa	né=vonàhōʔno	

When the |n| is retained, underlying |ʔhn| is always realized as Ch ʔn.

TA stems in PA *-aw underwent contraction to PA *a· with theme 2 and contraction to *o· with theme 4. The general agreement of the different Algonquian languages on these contractions was one of the first facts of comparative Algonquian grammar to be established (Michelson 1919, 1920); it shows that, at least in some cases, contraction was old and had already been morphologized in the protolanguage. Cheyenne retains the contraction to PA *a· (> Ch |ó|) in many forms (Leman 1991:61, 62, 1981:307). Other forms with contraction to PA *a· and all forms with contraction to PA *o· undergo decontraction; PA *-aw is restored as Ch |-óv|, with the high tone continuing the length of the old contracted vowels. In accordance with the regular tone adjustment rules, however, this tone is present phonetically only in an antepenultimate syllable or earlier

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[44] Note the contrast between né=aʔtaxèstse 'I accidentally burned you' (|aʔtaxete|) and né=aʔtáxestse 'you accidentally burned yourself' (|aʔtaxehte$|, as if PA *kepeʔtešwetwi; Cheyenne makes reflexives with the old reciprocal ending PA *-etwi AI).

[45] As if PA **wan-ehθaʔsw-; the final Ch |-ahoʔhn| TA, |-ahoʔh| TI 'burn' has a cognate in Menominee |-ɛhNaʔsw| TA, |-ɛhNaʔs| TI 'act on by heat, burning' (Bloomfield 1962:362).

(not counting non-final voiceless vowels):

(93) TA themes 2 and 4 of Ch |néhov-| 'chase' (< PA *no·hsaw-; 71).

	PA	Ch	Ch stem and ending
3s–1s	*neno·hsa·kwa	ná=néh<u>ova</u>	← |=néhov-| + |-a| (< PA *-ekwa)
3p–1s	*neno·hsa·ko·ki	ná=néh<u>óó</u>ʔe	|=néhóé| (|-óé| < PA *-a·ko·ki)
3'p–3s	*weno·hsa·ko·hi	é=néh<u>óó</u>ʔe (3'–3s)	|=néhóé| (|-óé| < PA *-a·ko·hi)
3s–1p	*neno·hsa·kwena·na	ná=néh<u>óéne</u>	|=néhóené| (|-óené| ← *-óenó < PA *-a·kwena·na)
X–1s	*neno·hsa·ko·ʔmi	ná=néh<u>óne</u>	|=néhóné| (|-óné| ← *-a·ke· < PA *-a·ko·-; cf. 77)
1s–2s	*keno·hso·θe	né=néhov<u>àtse</u>	← |=néhov-| + |-ate| (< PA *-eθe)
1s–2p		né=héneʔen<u>óvàtsēme</u>	← |=héneʔenov-|[46] + |-atemé| (84)

PARTICIPLES

In Cheyenne participles (which make relative clauses) the preverb *tsé*= replaces the Proto-Algonquian initial change; see also 60.

Animate intransitive participle

The AI participial endings (94; Leman 1991:116) are inherited directly. The first and second-person endings are the same as those of the conjunct indicative (56).

(94) AI conjunct participle (with *tsé*=) of Ch |hetanéve-| 'be a man' (< PA *erenyi·wi-; n. 6).

	PA	Ch	Ch ending
3s	*e·renyi·wi<u>ta</u>	=hetanevé<u>stse</u>	|-hte| < PA *-ta[47]

[46] Ch |héneʔenov-| TA 'know' ← Ch |hé-| (<?) + PA *keskinaw-.

[47] Since Ch |t| and |ht| are not distinct after a voiceless vowel (see *Single consonants*, above), *tsé*=*háóónátse* 'he who prays' and *tsé*=*sévánotse* 'he who skis or skates' (Leman 1991:116) could as well be written *tsé*=*háóónáhtse* and *tsé*=*sévánóhtse* (Wayne Leman, personal communication 1999); alternatively, the synchronic underlying form could as well be Ch |-te|.

3p	*e·renyi·wi<u>č</u>iki	=hetanéve<u>se</u>	|-se$| < PA *-čiki
3's	*e·renyi·wi<u>ri</u>čiri		(replaced by 3'p)
3'p	*e·renyi·wi<u>ri</u>čihi	=hetanévet<u>sese</u> (3')	|-tese$| < PA *-ričihi

The obviative participle has IAH where this would not be removed by HPO (Leman 1981:307): *tsé=mésêhétsese* 'he (obv.) who eats'. Participles with oblique heads have endings like the conjunct indicative (56), which would also have been used for inanimate-headed participles in Proto-Algonquian: *tsé=heese* 'what he said' (|-se| < PA *-či),[48] *tsé=hévóse* 'what they said' (|-vóse| < PA *-wa·či).

Transitive inanimate participle

In the TI participial endings (95; Leman 1991:134; Wayne Leman, personal communications 1999, 2000) the inherited distinction between subject-headed and object-headed participles is retained,[49] with some rebuilding, except where it would have been lost by regular sound change. The object-headed endings are the same as the corresponding conjunct endings if the object is singular, except perhaps (for some speakers) if the subject is obviative. There are different forms attested for plural-object heads, but they are obsolescent; most speakers use the same forms as for singular objects. The forms used with third-person or obviative subjects and singular objects and all those with plural objects are in 95:[50]

(95) TI conjunct participle (with *tsé=*) of Ch |vóóht-| TI-1 'see' (61) and |mése-| TI-3 'eat' (74).

PA	Ch	Ch ending
Singular object:		
TI-1		
<u>3s</u>–0 *waya·pant<u>anka</u>	=vóóht<u>o</u>	|-ó| < PA *-anka <u>3s</u>–0
<u>3s</u>–<u>Os</u> *waya·pant<u>anki</u>	=vóóht<u>o</u>	|-ó| < PA *-anki 3s–<u>Os</u> (62)

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[48] Cf. PA *e·či* 'what he said' (> F e·či, M ɛ·c); the stem Ch |hehe-| in this form reflects a virtual PA **esi-, matching Menominee |ɛse-| (Bloomfield 1962:140, 151).

[49] I am indebted to Wayne Leman for investigating this question and obtaining forms which allow the contrary statement in Leman (1991:135) to be corrected (personal communication 2000).

[50] In the formulaic labels indicating the pronominal participants of participles, the head is underlined; if neither participant is underlined, either may be the head.

TI-3

3s–0   *ma·čita   =mesèstse |-hte| < PA *-ta 3s–0 (=AI;
                                                 94)

3s–0s   *ma·čiči   =mesése |-se| < PA *-či 3s–0s (=AI
                                                 conj.; 56)

TI-1

3p–0   *waya·pantankiki   =vóohtose |-óse$| ← |-ó| 3s–0 +
                                                 |-se$| TI-3 3p–0

3p–0s   *waya·pantamowa·či   =vóohtomēvóse |-omevóse| < PA
                                                 *-amowa·či 3p–0s (62)

TI-3

3p–0   *ma·čičiki   =mésese |-se$| < PA *-čiki 3p–0
                                                 (=AI; 94)

3p–0s   *ma·čiwa·či   =mésévóse |-vóse| < PA *-wa·či 3s–0s
                                                 (=AI conj.; 56)

TI-1

3's–0   *waya·pantameričiri   (replaced by 3'p–0)

3'p–0   *waya·pantameričihi   =vóohtotsese |-ótese$| ← |-ó| + |-tese$|
                                                 TI-3 3'–0

        **paye·pentameričihi =áahtótsese[51]
        *we·ntenameričihi   =hestanótsese[52]

3'–0s   *waya·pantameriči   (replaced by 3'p–0)

TI-3

3'p–0   *ma·čiričihi   =mésetsese |-tese$| < PA *-ričihi
                                                 3'p–0 (=AI; 94)

Plural object:

TI-1

1s–0p   *waya·pantama·niri   =vóohtomonòtse |-omónote| ← |-omó| (62)
                                                 + |-n-ote| INpl (cf. 18)

2s–0p   *waya·pantamaniri   =vóohtomosèstse |-omosete| ← |-omo-| (62)
                                                 + |-sete| INpl

3s–0p   *waya·pantankiri   =vóohtosèstse |-ósete| ← |-ó| 3s + |-sete|
                                                 TI-3 3s–0p

TI-3

3s–0p   *ma·čičiri   =mésesèstse |-sete| < PA *-čiri

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[51] Ch |áaht-| 'listen to' < PA **pe·pent-, reduplication of PA *pent- (> Mun |pənt-| 'hear').

[52] Ch |hehtan-| 'take' < PA *weten- (> Ar |hiten-|: hi·ténowó· 'I take it').

TI-1

| 1p–Op | *waya·pant<u>ama·nkiri</u> | =vóoht<u>omátsee?èstse</u> | \|-omátéete\| ← \|-omaté\| |
| | | | 1p–0s (+ ') + \|-ete\| INpl |

12–Op *waya·pant<u>amankwiri</u> (same as 1p)

| 2p–Op | *waya·pant<u>ame·kwiri</u> | =vóoht<u>omásee?èstse</u> | \|-omáséete\| ← \|-omasé\| |
| | | | 2p–0 (+ ') + \|-ete\| INpl |

| 3p–Op | *waya·pant<u>amowa·čiri</u> | =vóoht<u>omévosèstse</u> | \|-omévósete\| <   PA |
| | | | *-amowa·čiri (+ ') |

| 3'–Op | *waya·pant<u>americiri</u> | =vóoht<u>otsesèstse</u> | \|-ótesete\| ← \|-ó\| 3s–0 + |
| | | | \|-tesete\| TI-3 3'–Op |

TI-3

| 3'–Op | *ma·čiri<u>čiri</u> | =mése<u>tsesèstse</u> | \|-tesete\| < PA *-ričiri |

In all class 3 forms with third person proximate subjects the contrast between subject-headed and object-headed endings is continued directly from Proto-Algonquian: Ch \|-hte\| 3s–0 (< PA *-ta) and \|-se\| 3s–0s (< PA *-či), and Ch \|-se$\| 3p–0 (< PA *-čiki) and \|-vóse\| 3s–0s (< PA *-wa·či). In class 1 this contrast was lost in the endings for singular subject by regular sound change, which produced Ch \|-ó\| 3s–0, 3s–0s from both PA *-anka 3s–0 and PA *-anki 3s–0s (as in the conjunct; 62). The class 1 ending for plural subject as head (\|-óse$\| 3p–0) was remodeled after class 3 (\|-se$\|).

For obviative subject and singular object, the older class 1 ending is Ch \|-ótese$\| 3'–0, which has \|-ó\| 3s–0 followed by Ch \|-tese$\| 3' (< PA *-ričihi 3'p), the obviative participle ending of the AI (94) and the class 3 TI. Instead of this form, speakers now generally use \|-ótese\| for either subject heads or object heads: tsé=áahtots ése 'what he (obv.) listened to; he (obv.) who listened to it'. This is the same ending as in the conjunct (62), but it is also the expected ending for the object-headed participle; perhaps originally the older ending Ch \|-ótese$\| indicated an obviative subject head and \|-ótese\| was used for an inanimate singular object head. As with a singular object, the ending for obviative on plural, Ch \|-ótesete\| 3'–0p, has \|-ó\| 3s–0 followed by the ending inherited in class 3, Ch \|-tesete\| (< PA *-ričiri TI-3 3'–0p). The conjunct obviative-subject endings may have been influenced by the corresponding independent endings (61), which have a sequence \|-óte\| that appears to be inherited.

For third singular subject with inanimate plural object head, class 1 has Ch \|-ósete\| 3s–0p, which combines \|-ó\| 3s–0 with \|-sete\| (< PA *-čiri TI-3 3s–0p), the ending that was inherited in class 3. It is probably this same Ch \|-sete\| that pluralizes the object in the second-singular form, Ch \|-omosete\| 2s–0p. The first-singular form \|-omónote\| 1s–0p pluralizes the object differently, with an ending taken from noun inflection (18); its tone

is phonetically lowered, and it would have fallen together with the second singular if it marked the plural object the same way. These endings with inanimate plural objects (|-omónote| 1s–Op, |-omosete| 2s–Op) may also show influence from the TA endings with animate plural objects (|-onó| 1s–3p, |-osé| 2s–3p; 78, 96).

The endings for plural subjects with plural-object heads add |-ete| INpl (< PA *-iri) and also add a high tone that is not present in the conjunct indicative to the vowel preceding the plural-subject suffixes. The model for this high tone is not known.

Transitive animate participle

Like the TI, the TA participial endings (Leman 1991:129, 189; Wayne Leman, personal communication 2000) differentiate subject heads and object heads if both are third person (96), with some exceptions. Some endings, both inherited and reshaped, are the same as those in the conjunct indicative (78, 79).

(96) TA conjunct participle (with *tsé*=) of Ch |vóom-| 'see' (61).

	PA	Ch	Ch ending
First or second person on third, third on obviative:			
1s–3s	*waya·pam<u>aka</u>	=vóom<u>o</u>	- |-o| < PA *-aka (cf. conjunct; 78)
1s–3p	*waya·pam<u>akiki</u>	=vóom<u>ōno</u>	|-onó| (same as conjunct; 78)
2s–3s	*waya·pam<u>ata</u>	=vóom<u>òhtse</u>	|-ohte| < PA *-ata[53]
2s–3p	*waya·pam<u>ačiki</u>	=vóom<u>ōse</u>	|-osé| (same as conjunct; 78)
3s–3's	*waya·pama·<u>čiri</u>		(replaced by 3s–3'p)
3s–3'p	*waya·pama·<u>čihi</u>	=vóom<u>ose</u>	|-óse$| < PA *-a·čihi
3s–3'	*waya·pama·<u>ta</u>	=vóóm<u>òhtse</u>	|-óhte| < PA *-a·ta
1p–3s	*waya·pam<u>akenta</u>	=vóom<u>ōtse</u>	|-oté| (same as conjunct; 78)
12–3s	*waya·pam<u>ankwa</u>	(same as 1p)	
1p–3p	*waya·pam<u>akenčiki</u>	=vóom<u>ótsee</u>?e	|-ótée| ← |-oté| 1p–3s (+ ') + |-e| ANpl
12–3p	*waya·pam<u>ankwiki</u>	(same as 1p)	
2p–3s	*waya·pame·<u>kwa</u>	=vóom<u>ōse</u>	|-osé| (same as conjunct; 78)

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[53] Ch |-ohte| and |-ote| would not be phonetically distinct, and -ótse is often written (n. 47).

2p–<u>3p</u>	*waya·pame·kwiki	=vóom<u>ósee</u>ʔe	|-ósée| ← |-osé| 2p–3s
			(+ ʹ) + |-e| ANpl
3p–<u>3ʹs</u>	*waya·pama·wa·čiri		(replaced by 3p–<u>3ʹp</u>)
3p–<u>3ʹp</u>	*waya·pama·wa·čihi	=vóom<u>óvo</u>se	|-óvóse$| < PA *-a·wa·čihi
<u>3p</u>–3ʹp	*waya·pama·čiki		(replaced by 3p–<u>3ʹp</u>?)
3ʹ–<u>3ʹʹs</u>	*waya·pama·ričiri		(replaced by 3ʹ–<u>3ʹʹp</u>)
3ʹ–<u>3ʹʹp</u>	*waya·pama·ričihi	=vóom<u>ótse</u>se	|-ótese$| < PA *-a·ričihi
			3ʹ–<u>3ʹʹp</u>, <u>3ʹp</u>–3ʹʹ

Third person on first or second, obviative on third:

<u>3s</u>–1s	*waya·pam<u>ita</u>	=vóom<u>āʔè</u>stse	|-aʔéhte| ← |-aʔé| (79) +
			*|-ehte| < PA *-ita 3s–1s
<u>3p</u>–1s	*waya·pam<u>ičiki</u>	=vóom<u>aʔe</u>se	|-aʔése$|[54] ← |-aʔé| (79) +
			*|-ese| < PA *-ičiki 3p–1s
<u>3s</u>–2s	*waya·pam<u>eθka</u>	=vóom<u>áta</u>ʔe	|-ataʔe| + IAH (same as conjunct; 79)
<u>3p</u>–2s	*waya·pam<u>eθkiki</u>	=vóom<u>ataʔō</u>se	|-ataʔosé| (same as conjunct; 79)
3ʹs–<u>3s</u>	*waya·pam<u>ekwečiri</u>		(replaced by <u>3ʹp</u>–3s)
<u>3ʹp</u>–3s	*waya·pam<u>ekwečihi</u>	=vóom<u>aese</u>	|-aese$| < PA *-ekwečihi
3ʹp–<u>3s</u>	*waya·pam<u>ekweta</u>		(replaced by <u>3ʹp</u>–3s)
<u>3s</u>–1p	*waya·pam<u>iyamenta</u>	=vóom<u>aētse</u>	|-aeté| (same as conjunct; 79)
<u>3s</u>–12	*waya·pam<u>eθankwa</u>	(same as 1p)	
<u>3p</u>–1p	*waya·pam<u>iyamenčiki</u>	=vóom<u>aetsee</u>ʔe	|-aetée| ← |-aeté| 3s–1p +
			|-e| ANpl
<u>3p</u>–12	*waya·pam<u>eθankwiki</u>	(same as 1p)	
<u>3s</u>–2p	*waya·pam<u>eθa·kwa</u>	=vóom<u>aese</u>	|-aesé| (same as conjunct; 79)
<u>3p</u>–2p	*waya·pam<u>eθa·kwiki</u>	=vóom<u>aesee</u>ʔe	|-aesée| ← |-aesé| 3s–2p +
			|-e| ANpl
3ʹs–3p	*waya·pam<u>ekowa·čiri</u>		(replaced by <u>3ʹp</u>–3p)
<u>3ʹp</u>–3p	*waya·pam<u>ekowa·čihi</u>	=vóom<u>aevo</u>se	|-aevóse$|
			< PA *-ekowa·čihi
3ʹp–<u>3p</u>	*waya·pam<u>ekwečiki</u>		(replaced by <u>3ʹp</u>–3p?)

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[54] High-tone \|é\| is assumed because of the paradigmatic relationships of this ending, but either underlying tone would yield a phonetic low in this environment.

First or second person on obviative:

1s–3′	*waya·pam<u>emakihi</u>	=vóom<u>amo</u>	|-amo| ← |-am| + |-o| 1s–3s (78, 96)
2s–3′	*waya·pam<u>emačihi</u>	=vóom<u>amòhtse</u>	|-amohte| ← |-am| + |-ohte| 2s–<u>3s</u> (96)
1p–3′	*waya·pam<u>emakenčihi</u>	=vóom<u>amōtse</u>	|-amoté| ← |-am| + |-oté| 1p–3s (78, 96)
12–3′	*waya·pam<u>emankwihi</u>	(same as 1p)	
2p–3′	*waya·pam<u>eme·kwihi</u>	=vóom<u>amōse</u>	|-amosé| ← |-am| + |-osé| 2p–3s (78, 96)

Obviative on first or second singular:

3′–1s	*wa·pam<u>iričihi</u>	=vóom<u>a</u>?étsese	|-a?étese$\| ← \|-a?é\| + *\|-etese$| (< PA *-*iričihi* 3′p–1s)
3′–2s	*wa·pam<u>emeθkihi</u>	=vóom<u>ata</u>?ótsese	|-ata?ótese$\| ← \|-ata?osé\| 3p–2s × \|-'tese$| 3′ (94)

The participial endings largely match those of the conjunct indicative (78, 79), except that they have Ch \|-hte\| (< PA *-*ta*) instead of \|-se\| (< PA *-*či*) for proximate singular heads, added \|-e\| ANpl (< PA *-*iki*) for proximate plural heads with first or second plural subject or object, and \|-se$\| (< PA *-*čihi*) instead of \|-se\| and \|-tese$\| (< PA *-*ričihi*) instead of \|-tese\| (< PA *-*riči*) for obviative heads. Obviative object heads are not marked by a participial suffix after a first or second person suffix, but only by the thematic suffix \|-am\|. The first and second singular endings have innovations and complexities paralleling those in the conjunct indicative.

The endings for plural subjects and plural objects suffix \|-e\| ANpl (< PA *-*iki*) and also, as in the TI participle, add a high tone of unknown origin to the vowel preceding the plural-subject suffixes.

Participles with oblique heads have endings like the conjunct indicative (78): *tsé=hétóse* 'what he (prox.) told him (obv.)'.

IMPERATIVE

A number of the imperative endings (97; Leman 1991:41, 84, 99) are of obscure origin, often with unidentified elements added to the expected ending or theme sign:

(97) Imperative of |mésehe-| AI 'eat' (44); |hehtan-| TI-1 'take' (n. 52); |vé?hóom-| TA 'look at'.[55]

	PA	Ch	Ch ending
AI			
2s	*mi·čihswi<u>rwe</u>	mésee<u>stse</u>	|-te| < PA *-*rwe* 2s
2p	*mi·čihswi<u>kwe</u>	mésehe_	|-$| < PA *-*kwe* 2p
TI-1			
2s–0	*weten<u>anrwe</u>	hestān<u>ótse</u>	|-óte| ← |-ó| (< PA *-*anrwe* 2s–0) + |-te| 2s
2p–0	*weten<u>amokwe</u>	hestan<u>ome</u>	|-ome| < PA *-*amokwe*
TA			
2s–3s	*wa·pam<u>i</u>	vé?hoom<u>eha</u>	|-eha| ← |-e| (< PA *-*i* 2s–3) + |-ha| (< ?)
2s–3p	*wa·pam<u>i</u>	vé?hoom<u>enáno</u>	|-enánó| ← |-e| (< PA *-*i* 2s–3) + |-nánó| (< ?)
2p–3	*wa·pam<u>ehkwe</u>	vé?hoom<u>a</u>	|-a| < PA *-*ehkwe* 2p–3
2s–1s	*wa·pam<u>irwe</u>	vé?hoom<u>éstse</u>	|-ete| < PA *-*irwe* 2s–1s
2p–1s	*wa·pam<u>ikwe</u>	vé?hoom<u>e</u>	|-e$| < PA *-*ikwe* 2p–1s
2–1p	*wa·pam<u>ina·me</u>	vé?hoom<u>emeno</u>	|-emeno| (< ?; cf. 82)

The TI singular adds the AI ending |-te| 2s to the expected inherited ending |-ó| (< pre-Ch *-óhe* < PA *-anrwe* 2s–0). The TA endings for second singular on third person add elements of unknown origin that introduce the distinction of number for the object. The ending |-emeno| 2–1p is the same as the independent order ending |-emeno(ne-)| (82), and the presence of |m| suggests that it may have originated in the independent order; it is not clear how there could be any connection to PA *-ina·me* 2–1p imp.

OTHER INDEPENDENT MODES

There are a number of independent order modes besides the indicative, some marked with morphemes of unknown origin:

(98) Suffixes marking non-indicative modes of the independent order.
 Independent interrogative mode: |-he$|; 3p/3' |-vo-he$|
 Independent dubitative mode: |-he-hé|; 3p/3' |-he-vo-hé|
 Independent attributive mode: |-'sehte|; 1s/2s |-máse|; 3p/3' |-'sehto|

The interrogative mode makes polar (yes-no) questions; it is not used for focused (question-word) questions (see also 46, 63). Although most forms

[55] |vé?hóom-| TA ← Ch |vé?h-| (< ?) + PA *-a·pam* TA 'look at'.

add a suffix |-he$| interr., those ending with the inanimate plural ending add only |-$|, which has the effect of voicing the penultimate vowel (Leman 1991:93): né=vóohtanótse 'you (sg.) saw them', interrogative né=vóohtanotse 'did you (sg.) see them?'. These forms that appear to suffix only |-$| (< *-CV) suggest that the interrogative was originally marked by a monosyllabic enclitic, which brings to mind the Ojibwa interrogative enclitic =(i)na. (Interrogative endings with and without |-he$| may also have other differences from the independent indicative, often being apparently based on an earlier form of the independent indicative ending.) Similarly, the interrogative ending |-vohe$| 3', 3p could reflect post-PA *-wahi 3'p (46) before an enclitic |-$| (< *-CV): é=méséhevohe 'did he (obv.) eat? did they eat?' < post-PA *mi·cihsowahi=CV 3'p. The retention of the *-hi of the Proto-Algonquian obviative plural ending in this and other interrogative forms beside its loss in the corresponding independent forms (before the restructuring of the obviative endings) would have made Ch |-he$| the ostensible interrogative suffix in the obviative endings; it seems likely that |-he$| interr. then spread from these endings to others.

The dubitative mode makes sentences with the meaning 'must have' (see also 45, 46, 82). Its history is probably parallel to the interrogative, with an original enclitic incorporated into the endings along with the diminutive |-he| (< PA *-hsi).

The attributive mode (Leman 1991:38) adds the meaning 'be said to have'. The use of |m| in the first and second singular endings agrees with the pattern in the dubitative of Fox and Ojibwa. The modal suffix would reconstruct as PA **-či(t-); this is unparalleled unless it can be compared to the Menominee recollective mode, attested by a unique form with first singular ending -mecet (Bloomfield 1962:52).

The independent mediate (99) or surprisal mode, used only in the third person (Leman 1991:40, 83), reflects the PA *-sapan mode continued also by the Fox conclusive mode and the Menominee present, among others (Goddard 1995:131–4):

(99) 3s éh=méséhéhoo?o 'he sure ate'; Ch |-'hoo| < *-‑sapan-a < PA *-w-esapani
3p éh=méséhéhoono 'they sure ate'; Ch |-'hoono| < *-‑sapan-aki ← PA *-w-esapaniki

The stem-final *i contracted with *-w-e to *-i·; this contraction is reflected by the high tone that these endings induce.

The Proto-Algonquian independent preterite mode survives in the third person and obviative forms of the independent indicative of the verb 'say

(something)':

(100) Forms of 'say (something)' from the PA preterite.

	PA preterite	Ch ind. ind.	Ch underlying form
3s	*ew-e<u>pani</u>[56]	é=hevoo?o	|hevoo| ⟵ *hevo 3s ind. ind. + |-o| < PA *-pani
3p	*ew-e<u>panyiki</u>	é=hevo<u>o</u>ne	|hevooné| ⟵ *hevo + |-oné| < PA *-panyiki (+ ')
3'	*ew-e<u>panyihi</u>	é=hevo<u>o</u>ne	|hevooné| ⟵ *hevo + |-oné| < PA *-panyihi (+ ')

The ostensible stem of these forms, Ch |hevo-| is the historically expected form of the third singular (as well as the plural and obviative); apparently this came to be used with the preterite suffix |-o(n-)| before pre-Ch *|hevo| 'he says (something)' was analogically replaced by |heve| (51). The high tone on the plural and obviative ending conforms to the general Cheyenne pattern and need not be old.

CONJUNCT MODES

The modes distinguished in the conjunct (101; Leman 1991:110–119) and the delayed imperative (Leman 1991:41) reflect PA forms, with minor innovations.

(101)   Suffixes marking the modes of the conjunct order (AI 3s, 3p).

Ch	Ch ending
Conj. indicative	
tséh=némé<u>n</u>è<u>se</u> 'when he sang'	|-se| < PA *-či
tséh=némené<u>vóse</u> 'when they sang'	|-vóse| < PA *-wa·či
Subjunctive	
màh=némén<u>è</u><u>stse</u> 'if, when he sings'	|-hte| < *-te < PA *-te·
màh=némené<u>vóhtse</u> 'if, when they sing'	|-vóhte| < *-wa·te < PA *-wa·te·
Participle	
tsé=némén<u>è</u><u>stse</u> 'he who sings'	|-hte| < PA *-ta
tsé=nêmen<u>e</u><u>se</u> 'they who sing'	|-se$| < PA *-čiki

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[56] These forms are given here as uncontracted, but probably contraction was old in the preterite (cf. Goddard 1995:134–5) and Cheyenne decontracted the endings on the analogy of the independent indicative, like (pre-)Menominee and some Ojibwa dialects. For *e- AI 'say (something)' Menominee (Bloomfield 1962:164–5) and Fox support a preterite PA *eyo·pani 3s, which only makes sense if contraction is old. (PA *eyo- is the form taken by *e- when followed by a suffix that inserts *o after a consonant.)

Iterative

óh=némene<u>séstse</u> 'when[ever] he sings'	|-sete| < PA *-*čiri*
óh=naóotsé<u>vosèstse</u>[57] 'when[ever] they sleep'	|-'vósete| < PA *-*wa ·čiri*

Delayed imperative

méseheo?<u>o</u> 'don't eat then (2s)'	|-o| < PA *-*hkani*
mésehé<u>héne</u> (2p)	|-hené| < PA *-*hsi-hke ·kwe*

Hortative

méséhe<u>ha</u> 'let him eat'	|-ha|
méséhé<u>voha</u> 'let them eat'	|-'voha|

The endings for the conjunct indicative, subjunctive, and participle remain distinct as sets, though with some homophony in individual forms; distinct preverbs are also used. The iterative inflection is like a participle with plural inanimate object. The delayed imperative continues the Proto-Algonquian prohibitive (marked with *-*hk*), which is used without a negative particle as a future imperative in Fox, Cree, and Ojibwa (Bloomfield 1946:100); the plural ending incorporates the diminutive suffix PA *-*hsi*. The \|-ha\| that marks the hortative (third-person imperative) was also added to the imperative ending for second singular on third singular (97) but its source is not known; it is not even clear if the hortative is an independent mode or a conjunct mode. Preverbs indicate many additional modal distinctions.

OTHER INHERITED VERBAL MORPHEMES

Cheyenne retains a number of other verbal inflectional morphemes (102, 103; Leman 1991:31; Wayne Leman, personal communication 1999).

(102) Negative: *ná=sáa=méséhéhe* 'I did not eat'; Ch \|-'hé\| (cf. O -*ssi·* neg.).

(103) Relational: *tséh=voneotsevo* 'when I was lost, (he ...)'; Ch \|-vo\| 1s < PA *-*waki*.

The restriction of the relational inflection to first singular forms is reminiscent of Fox (Goddard 1995:141–6); Fox inherits it also with indefinite-subject forms, but these are lost in Cheyenne.

Cheyenne marks secondary objects on both transitivized AI (AI+O) verbs and double-object TA (TA+O) verbs (Leman 1991: 67, 104–7):

(104) AI+O *ná=heškenótse* 'she is my mother'; Ch \|-note\| < PA *-*n-ari* (stem

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[57] Ch \|naóote-\| 'sleep' < PA *nepa·paryi-.

Ch |hehké-| AI+O)[58]

é=méanoto 'he gave him (obv.) away'; Ch |-noto| < PA *-n-ar-ahi* (Ch |méa-| AI+O)[59]

(105) TA+O *ná=métaaʔe* 'he gave it to me'; Ch |-ae| < PA *-ekweni* (Ch |mét-| TA+O; 87)

ná=métaenótse 'he gave them (inan.) to me'; Ch |-aenote| < PA *-ekwenari*

An animate secondary object is marked by a suffix |-ote| (104) which has the shape expected for the obviative singular; this same peculiarity is also found in some varieties of Ojibwa, which suffix *-an*. The regular obviative ending Ch |-o| is added to this. Otherwise these endings agree well with other languages (Goddard 1974:319). There are also participles made from stems of these types (Leman 1991:130).

CONCLUSION

This survey shows that morphologically Cheyenne is an ordinary Algonquian language. It has a high tolerance for irregularity and maintains a great deal of the morphology of the proto-language, often unaltered but sometimes restructured. It has some unique innovations but also its share of archaisms.

REFERENCES

Bloomfield, Leonard. 1946. Algonquian. *Linguistic structures of native America*, ed. by Harry Hoijer et al. (Viking Fund Publications in Anthropology 6), 85–129.

——. 1962. *The Menomini language*. New Haven: Yale University Press.

Ellis, Douglas C. 1971. Cree verb paradigms. *International Journal of American Linguistics* 37:76–95.

Goddard, Ives. 1967. The Algonquian independent indicative. *Contributions to Anthropology: Linguistics I* (National Museum of Canada Bulletin 214), 66–106.

——. 1974. Remarks on the Algonquian independent indicative. *International Journal of American Linguistics* 40:317–327.

——. 1977. The morphologization of Algonquian consonant mutation. *Proceedings of the Third Annual Meeting of the Berkeley Linguistics Society* (Berkeley), 241–250.

——. 1978. The Sutaio dialect of Cheyenne: a discussion of the evidence. *Papers of the 9th Algonquian Conference*, ed. by William Cowan (Ottawa: Carleton University), 68–80.

——. 1979. *Delaware verbal morphology: a descriptive and comparative study*. New York: Garland.

[58] Ch |hehké-| AI+O 'have as a mother' < PA *wekyi-*, with secondary high tone as apparently in all verbs of possession.

[59] Ch |méa-| AI+O 'give away' < PA *mye·ke-* (*mye·kwa* 3s). The lack of yodation in this stem is apparently unparalleled; perhaps yodation did not take place in final syllables and the stem variant without it was generalized. Compare Shawnee, in which the regular shift of PA *ke* to Sh *ki* does not take place word-finally: Sh *nimye·ke* 'I sold it', *nimye·kina* 'I sold them (inan.)'.

———. 1981. Against the linguistic evidence claimed for some Algonquian dialectal relationships. *Anthropological Linguistics* 23:271–297.

———. 1988. Pre-Cheyenne *y*. In *honor of Mary Haas: from the Haas Festival Conference on Native American Linguistics*, ed. by William Shipley (Berlin: Mouton de Gruyter), 345–360.

———. 1991. Observations regarding Fox (Mesquakie) phonology. *Papers of the 22nd Algonquian Conference*, ed. by William Cowan (Ottawa: Carleton University), 157–181.

———. 1993a. Songs in Fox (Mesquakie) texts: linguistics and philology. *Papers of the 24th Algonquian Conference*, ed. by William Cowan (Ottawa: Carleton University), 212–239.

———. 1993b. Contamination in morphological change in Algonquian languages. *Historical Linguistics 1989. Papers from the 9th International Congress on Historical Linguistics*, ed. by Henk Aertsen and Robert Jeffers (Current Issues in Linguistic Theory 106; Amsterdam: John Benjamins), 129–140.

———. 1994. The west-to-east cline in Algonquian dialectology. *Actes du 25ᵉ Congrès des Algonquinistes*, ed. by William Cowan (Ottawa: Carleton University), 187–211.

———. 1995. Notes on Fox (Mesquakie) inflection: minor modes and incompletely described morphemes. *Papers of the 26th Algonquian Conference*, ed. by David Pentland (Winnipeg: University of Manitoba), 124–150.

Lacombe, Albert. 1874. *Grammaire de la langue des Cris*. Montreal: C.-O. Beauchemin & Valois.

Leman, Wayne. 1980. Evidence for a PA *k: Cheyenne n correspondence. *International Journal of American Linguistics* 46:316–318.

———. 1981. Cheyenne pitch rules. *International Journal of American Linguistics* 47:283–309.

———. 1987. Cheyenne obviation pitch alternations. *Papers of the 18th Algonquian Conference*, ed. by William Cowan (Ottawa: Carleton University), 173–186.

———. 1991. A reference grammar of the Cheyenne language. 3rd rev. ed. Busby, Montana: Cheyenne Translation Project.

Leman, Wayne, and Richard Rhodes. 1978. Cheyenne vowel devoicing. *Papers of the 9th Algonquian Conference*, ed. by William Cowan (Ottawa: Carleton University), 3–24.

Michelson, Truman. 1919. Two proto-Algonquian phonetic shifts. *Journal of the Washington Academy of Sciences* 9:333–334.

———. 1920. Two phonetic shifts occurring in many Algonquian languages. *International Journal of American Linguistics* 1:300–304.

———. 1935. Phonetic shifts in Algonquian languages. *International Journal of American Linguistics* 8:131–171.

Petter, Rodolphe. 1915. English-Cheyenne dictionary. Kettle Falls, Wash.: The Mennonite Mission among the Cheyenne Indians of Oklahoma and Montana.

Picard, Marc. 1984. The case against Cheyenne n from PA *k. *International Journal of American Linguistics* 50:111–117.

Proulx, Paul. 1982. Proto-Algonquian *k in Cheyenne. *International* Journal of American Linguistics 48:467-471.

Taylor, Allan R. 1994. Gros Ventre dictionary. 4 vols. Pre-final version. Boulder: Center for the Study of the Native Languages of the Plains and the Southwest.

Wolfart, H.C. 1996. Sketch of Cree, an Algonquian language. *Handbook of North American Indians*, v. 17: *Languages*, ed. by Ives Goddard (Washington: Smithsonian Institution), 390–439.