

Cheyenne

Multiple processes at the initial-final boundary

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Overview

- Primarily spoken in Montana (Northern Cheyenne, 300+ fluent speakers, Chief Dull Knife College (CDKC), p.c.) and Oklahoma (Southern Cheyenne)
- Existing documentation:
 - Dictionary including audio (Fisher, Leman, Pine, and Sanchez 2006)
 - Lexique Pro: desktop, online, and print versions
 - <http://cdkc.edu/cheyennedictionary/index.html>
 - Grammar and edited text collections (e.g., Leman 1980, 2011)
 - Current text digitization project (Littlebear, Leman, Murray and others at CDKC)
- Methodology: collected examples from the dictionary and grammar, annotated spreadsheet and morphological analysis, datasets based on orthography

Cheyenne


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Dictionary

Fisher, Lemán,
Pine, and
Sanchez 2006

and regularly
updated online


-ame *vai.* shoot. **É-ame.** He shot. *vta:* **-am.** *See:* **ho'amé;** **vóheame.** *Category:* **shoot.**

 **ame** *ni.* pemmican. *Simplified Spelling* **um.** *See:* **aměške.** *Etym:* *pemi 'grease'. *Category:* **meat.**


ame- *pv.* along, by, continue. 'along' as in 'while going along'; 'by' as in 'while going by'. **É-aměsópaxe.** He ran by. **É-amevonehne.** He is crawling. **É-ametó'hóna.** He is swimming. **É-ametáhoo'e.** He's riding along (for example, on horseback). **Étaome-ametāno.** He has his own thing going; nobody can tell him anything different. **É-aměhesematónéóhtse.** He (especially a dog) is going around sniffing here and there. **É-aměho'ěhāhtse.** He keeps feeding the fire. **É-aměhóxovéstáva.** He traveled along. **ame-'xóvéva** as time goes along. *See:* **něše-;** **ameto.**

-ame *sfx.* possessive noun suffix. **namótšěšk-ame** my knife. **naka'ěškóněh-ame** my (non-biological) child. **hevéhon-amo** his chief(s). **nama'háhkěséhame** my old man. *Ques:* semantics of this suffix?? inalienable possession?? *Category:* **check.**

-ameeh *vta.* help s.o. move. **É-ameehóho.** He helped him move. *Category:* **move.**

-ameehe *vai.* move one's belongings to another residence.  **É-ameehe.** He is moving. **tsé-ameehese** the travelers. [1987:18] **Éne'-ameehéstove.** There is moving of camp (towards speaker); it is the "second coming" (an elder says this term is used to speak of a second coming which Cheyennes have believed in. *fai:* **-eehe.** *See:* **-aseehe;** **-heséehe.** *Category:* **camp, motion.**

-amee'e *vai.* grow up. **É-amee'e.** He's growing up. *Synonym* **-ameěsee'e.** *Phon:* vs






-ameěsee'e *vai.* grow.  **É-ameěsee'e.** He is growing. *Phon:* vs *See:* **-ěsee'e.** *Category:* **body function.**

-améetó *vii.* snow go by, snow continually. **É-améeto.** The snow is going by / it keeps on snowing. *Category:* **snow.**

Annotated spreadsheets for preverbs, initials + finals

	A	B	C	D	E	F	G	H
1	Preverb/prefix	Definition	Source	Initial segmen	Final segment	Form	#	Notes
2	é-	3rd person	Dictionary	é	é	V	1	Person prefix, different category
3	ná-	1st person	Dictionary	n	á	CV	2	Person prefix, different category
4	né-	2nd person	Dictionary	n	é	CV	2	Person prefix, different category
5	nê-	referring back (anaphoric)	Grammar	n	e	CV	2	
6	ta-	away, TRL	Grammar	t	a	CV	2	directional, different category cf. nêh- CIS
7	ta-	first person hortative	Grammar	t	a	CV	2	
8	tsé-	referring forward (cataphoric)	Grammar	ts	é	CV	2	
9	he-	have	Grammar	h	e	hV	2	relative root, different category, combines with nouns
10	hé-	purposive	Dictionary	h	é	hV	2	
11	ho-	very much	Dictionary	h	o	hV	2	
12	oh-	even though	Dictionary	o	h	Vh	2	ox- before h
13	oh-	unsuccessful, try, frustrated	Dictionary	o	h	Vh	2	allomorph ox- before /h/; oht- before a vowel; xóh- with past tense often combines with following to'se-, for meaning of 'was going to(but was unsuccessful at)'
14	o'-	just for that	Dictionary	o	glottal stop	V'	2	
15	ee-	about, around	Dictionary	e	e	VV	2	non-contracted eve-
16	hó'-	arrive, come	dictionary	h	glottal stop	hV'	3	cf ho'- initial, there is a preverb allomorph ending in e, e.g., Náévá-ho'è-hóó'óhtse. 'I have arrived back home.'

Orthography and phonology

- Tone
 - **he'e** 'liver' 
 - **hē'e** 'woman' (/he'é/) 
- Voiceless vowels
 - **máhtohto** 'ten' 
- Complex Syllables
 - **náhkohe** 'bear' 
 - **náhkóheo'o** 'bears' 
- Many phonological rules, eg <t> → <ts> before <e>
- Three phonemic vowels, [v] can be a glide,



(e.g., Fisher et al 2006, Leman 2011, Leman and Rhodes (1978))

Datasets: 3 kinds of alternations

- Looking at the initial-final boundary and the preverb-initial boundary
- Logically, first element can end in a C or a V; second can begin in a C or a V
- Two relevant kinds of consonants:
 - F = fricative {s, š, h}
 - C = any non-fricative

- | | | | |
|----|-----------|-----------|-------------------------------|
| 1. | ...C+C... | ...C+V... | initial ends in non-fricative |
| 3. | ...F+C... | ...F+V... | initial ends in fricative |
| 3. | ...V+C... | ...V+V... | initial ends in vowel |

Alternation #1: $\emptyset \sim \langle e \rangle$ at initial-final boundary

pre-preverb	[initial	-final]	-suf	Translation
É-	[am	-a'éno'hāme]		'S/he is driving along.'
É-	[am	-évone]		'The sound went by.'
É-	[am	-o'áhéotse]		'S/he ran by.'
É-	[am	-ótáne]		'S/he burrowed along.'
É-	[ame	-méohe]		'S/he's running along.'
É-	[ame	-tó'hóna]		'S/he's swimming by.'
É-	[ame	-vonēhne]		'S/he's crawling along.'

Alternation: [am-] ~ [ame-] 'along'

Generalizations: Avoid CC and VV sequences across initial-final boundary

Alternation #1: no alternation at preverb-stem boundary

pre-preverb	[initial	-final]	-suf	Translation
É- ame-	[éšee'e]			'S/he is growing.'
É- ame-	[é'kots	-en]	-ó-ho	'S/he has an arm around him/her while going by'.
É- ame-	[táh	-oo'e]		'S/he's riding along.'
É- amè-	[sóhp	-a'xe]		'S/he ran by.'

No alternation: [ame-] 'along'

Generalizations: All preverbs at preverb-stem boundary end in a vowel

Alternation #2: <t> ~ ∅ ~ <e> at initial-final boundary

pre-preverb	[initial	-final]	-suf	Translation
É-	[ést	-á'o.]		He flew into.
É-	[ést	-óé'o]		It floated in.
É-	[és	-é'ha]		He flew in.
É-	[ése	-méohe]		He pushed/forced his way in.
É-	[ése	-vo'e'ov]	-óho	He chased him in.

Alternation: [ést-] ~ [ést-] ~ [ése-] 'in, into'

Generalizations: Avoid fricatives before {a, o} across initial-final boundary.
Avoid CC and VV sequences across initial-final boundary.

Alternation #2: no alternation at preverb-stem boundary

pre	preverb	[initial	–final]	–suf	Translation
É–	ése–	[óe	–šem]	–óho	He threw him into.
É–	ése–	[én	–án]	–a	He put it in.
É–	ése–	[vá	–ohe]		He threw it in(side).

No alternation: [ése-] ‘in, into’

Generalizations: All preverbs at preverb-stem boundary end in a vowel

Alternation #3: <v> ~ ∅ at initial-final boundary

pre-preverb	[initial	-final]	-suf	Translation
É-	[évav	-a'ee'e]		He is sitting backwards.
	[évav	-eto]		back then, long ago (particle)
É-	[évav	-ó'áne]		He said the opposite.
É-	[éva	-ma'ēn]	-a	He turned back (the page).
É-	[éva	-vo'éhāhtse]		He ran into it (e.g. with a car).

Alternation: [évav-] ~ [éva-] 'back'

Generalizations: Avoid CC and VV sequences across initial-final boundary.

Alternation #3: no alternation at preverb-stem boundary

pre	preverb	[initial	–final]	–suf	Translation
É–	éva–	[ame	–ōhtse]		‘He’s walking again (e.g. after accident).’
É–	éva–	[én	–an]	–óho	‘He let him off.’
É–	éva–	[pèhéve	–otse]		‘He is getting better / he got better.’
É–	éva–	[nèh	–an]	–óho	‘He (e.g. a medicine man) wiped him off.’

No alternation: [éva-] ‘back’

Generalizations: All preverbs at preverb-stem boundary end in a vowel

Variation in prosodic structure

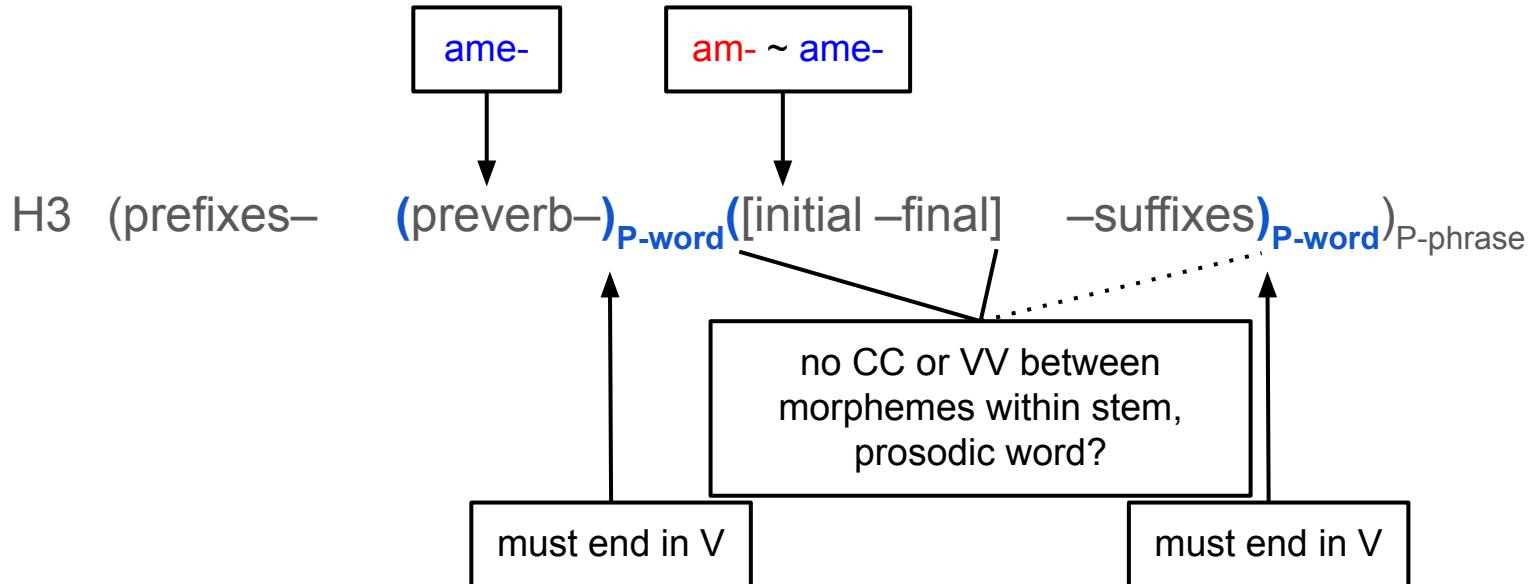
- Some languages compatible with:
 - **H2** (Blackfoot)
 - **H3** (Ojibwe, Plains Cree)
 - uncertain (Cheyenne, Arapaho)

H2 (prefixes— preverb— (initial —final —suffixes)**P-word**)_{P-phrase}

H3 (prefixes— (preverb—)**P-word**(initial —final —suffixes)**P-word**)_{P-phrase}

Mapping evidence onto prosodic structure

- Cheyenne is compatible with H3 (or something like it)



Future work

- Analyze audio recordings in addition to orthography
- Find more evidence for/against P-words
 - same minimal size?
 - tonal properties?
 - domains of processes?
 - other edge requirements?
 - stem vs prosodic word?
- Consider other morphological junctures

A landscape photograph showing a wide, grassy field in the foreground, partially enclosed by a wire fence. In the middle ground, there are several low, rounded hills or mesas with light-colored, possibly sandy or silty, soil. The background is a clear blue sky with scattered, wispy white clouds. The overall scene is bright and open.

Thank you!

References

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